

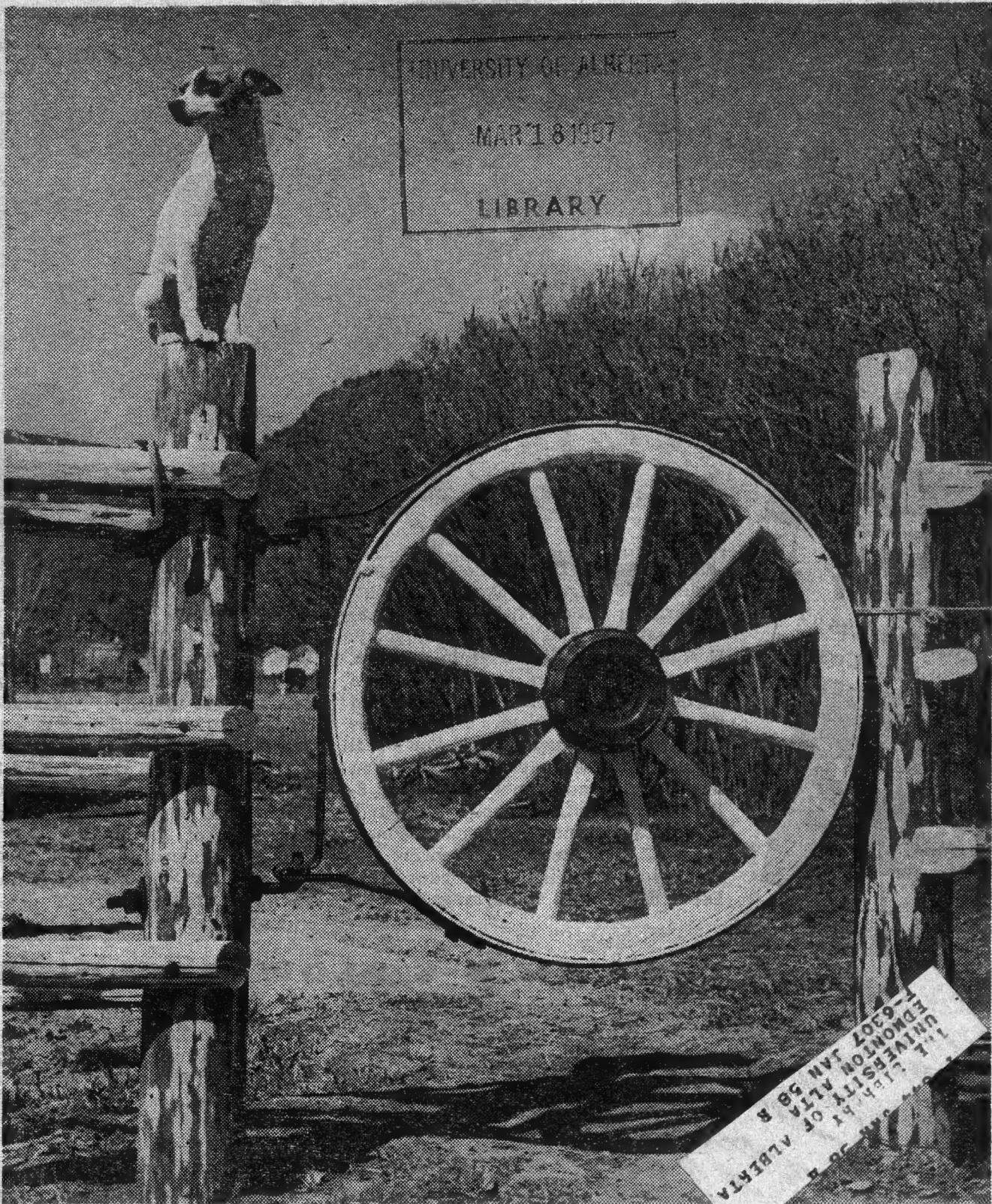
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# Farm and Ranch Review

VOLUME LIII  
NUMBER 3.

*App Sci*  
CALGARY, ALBERTA  
MARCH, 1957



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Picturesque entrance to the Wagon Wheel Ranch, Westwold, British Columbia. Louis Field is the owner and raises Hereford cattle.

*Feature Story—*  
**The History of The Kootenay Flats—Page 30**

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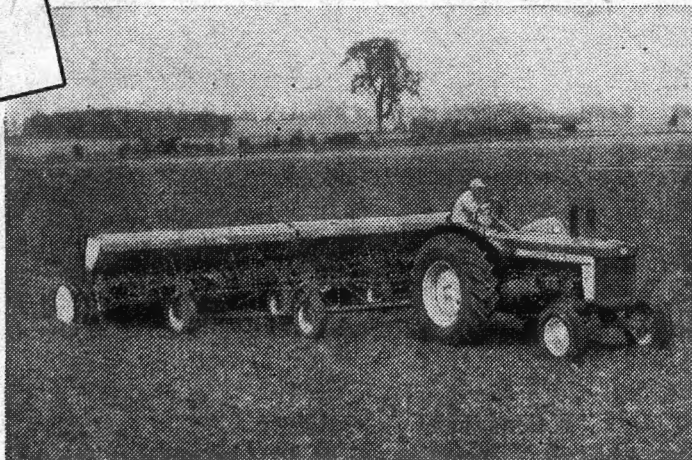
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# Farm and Ranch Review

Western Canada's Pioneer Agricultural Magazine  
Vol. LIII. Founded in 1905 by Charles W. Peterson  
P.O. Box 620, Calgary, Alberta

No. 3

Leonard D. Nesbitt, Editor and Publisher

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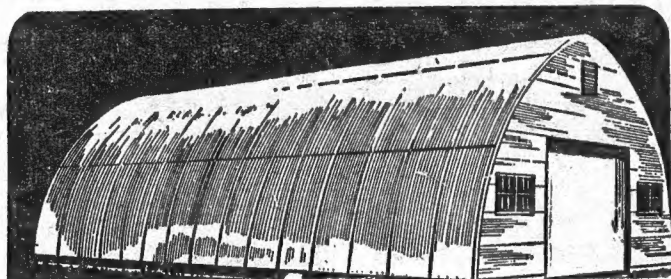
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Editor



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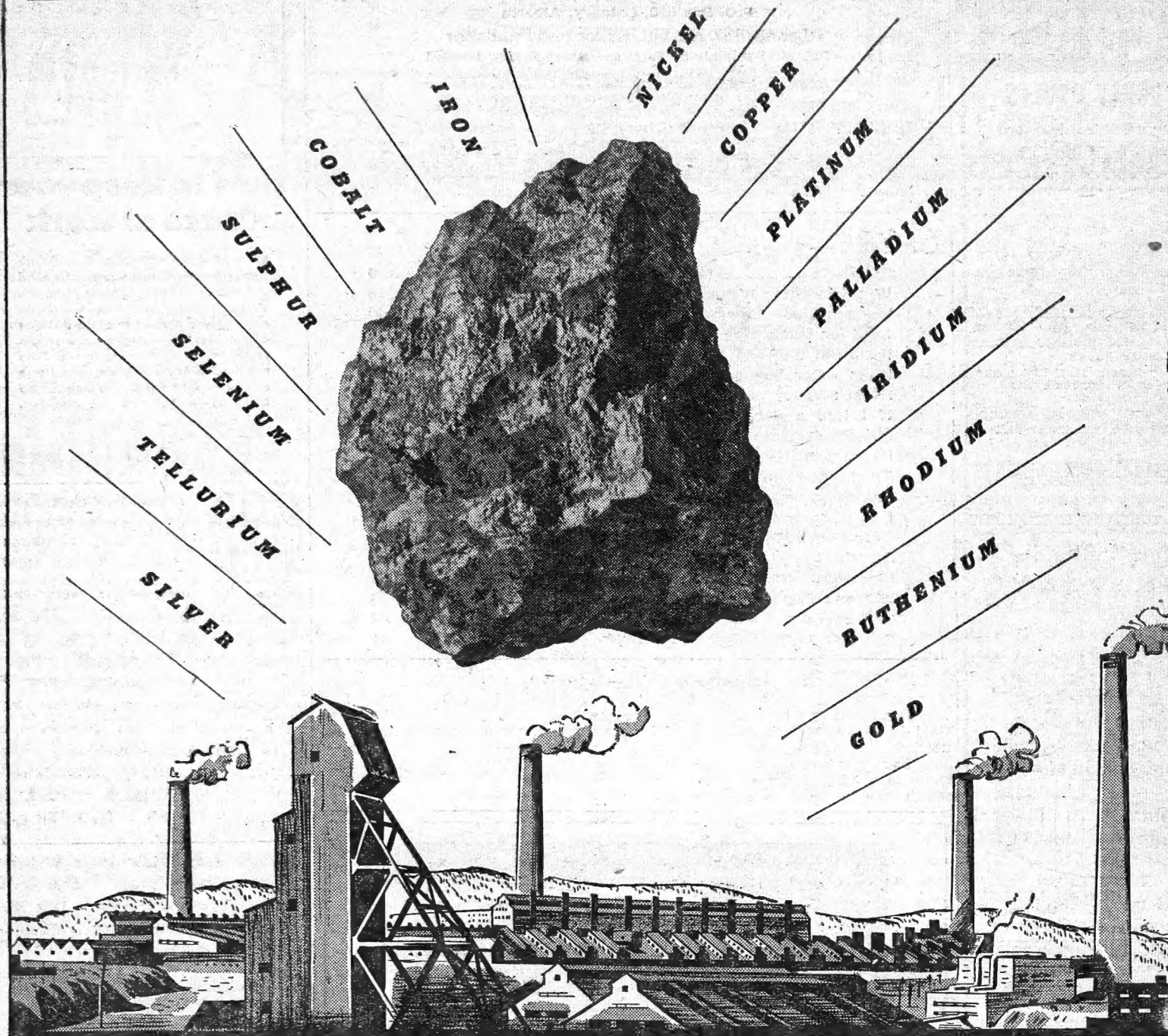
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## Farm and Ranch Review Editorials

### Fifty Million Dollars For Canadian Culture

**T**HE federal government has established a Canada Council for the encouragement of "Canadian arts, humanities and social sciences", and endowed it with a fund of \$100,000,000.

Fifty million dollars of that total will be invested and the interest given to Canadian universities for expansion. The balance will be at the disposal of the council to be used as it sees fit.

In our opinion the contribution to universities is praiseworthy. Canada needs highly-trained young men and women to keep in step with other world nations.

But with the income tax payment time at hand and farm people in Western Canada, caught in a cost-price squeeze, the fifty million dollars donation for the encouragement of "Canadian culture" will have little appeal.

We always had the idea that culture was encouraged, first in the home, then nurtured in the schools and burst into flower when sponsored by public institutions in villages, towns and cities. In these prosperous times one would think that lavish government handouts are unnecessary. The Banff School of Fine Arts, one of the best contributions made to culture in Canada, was financed mainly from individual and corporation contributions, and in a period of depression.

But now the government is going to hand over fifty million dollars to a council of 21 appointees, which will have control over expenditures. Most of the money will probably be spent in central Canada and we will probably see far more frolicsome lassies and lads gamboling in body tossing stunts on a CBC television stage.

The council will probably consist of a group of highbrows sitting in an ivory tower, contriving ways and means of spending the money, safe in the knowledge that no accounting to parliament is necessary.

★

### The Wealth In Western Agriculture

**"NEWSWEEK"**, an United States publication, recently remarked that Alberta was a "poor agricultural province", prior to the discovery of oil at Leduc and the expansion in exploration and development that followed that event. Admittedly Alberta was (and is) an agricultural province but not by any means a "poor" one.

Only too many people in the United States, and also in Eastern Canada, have the idea that the prairie provinces, being mainly agricultural, are backward regions.

Actually these three provinces, Manitoba, Saskatchewan and Alberta, each with an area in excess of 250,000 square miles, include within their combined boundaries an area of rich agricultural land for which there is no equal in size and productivity in the entire world.

The total occupied farm area in this region is 125,000,000 acres, of which 72,000,000 is improved land 46,000,000 acres sown to crops each year. Around 90% of the nation's annual grain crops are produced here.

While in the area of the three provinces there are regions subject to occasional drouths, there is nothing resembling the desert-like conditions prevailing in so many of the U.S.A. midwest states.

The average annual wheat production of the 230,000 wheat farmers in this area over the past six years has been in excess of half a billion bushels, or about half the total annual production of the entire United States, and substantially more than the combined wheat production of Argentina and Australia.

In 1952 the farmers here produced 664,000,000 bushels of wheat and the one province of Saskatchewan contributed 435,000,000 bushels of the total.

★

### Egg Prices Have Been Too Low

**P**OULTRY producers will have an opportunity to vote on the establishment of an egg marketing board in Alberta. The present legislation, which makes a favorable vote on any marketing board almost impossible to achieve, is to be amended so that a reasonable majority vote of producers will decide whether or not such a board will be brought into being.

The floor price of 38c a dozen for A grade large eggs has failed to be effective in providing price protection for those who produce eggs. Producers have been getting less than 30c a dozen for eggs, which is less than 15c a dozen when the devaluation of the dollar is taken into consideration. That is too low a price by far for this important industry, and leaves nothing but losses for the poultry people.

The Edmonton Journal opposes government interference with egg prices. It claims that the law of supply and demand should not be interfered with as it inevitably brings production and prices into balance.

The truth is that we are living under a managed economy and the so-called law of supply and demand is honored more in the breach than in the observance. The Edmonton Journal, for instance, is in a monopoly position and can charge whatever it likes for its services, regardless of any economic law.

Agriculture, of all enterprises, has been the most stubborn stronghold of individualism. And the farmer has been suffering the fate of the individualist in a corporate world, wherein businessmen, industrialists, trade unions, bankers and the professions are operating through group action.

★

The United States' secretary of agriculture, Ezra T. Benson, said his country's wheat export policies have not done much harm to Canadian wheat exports. Canada's minister of trade and commerce, Rt. Hon. C. D. Howe, said Mr. Benson is mistaken.

### Commonsense Talk By Dairymen's President

**T**HE Dairy Farmers of Canada can be congratulated in the selection of Gordon Loveridge, of Grenfell, Saskatchewan, as its new president. His address to the Alberta Dairymen's convention was replete with factual material, pungent, direct and businesslike. Obviously his objective is to extricate the industry from the position of a suppliant for governmental and public favors, create a pride in occupation among dairy producers and demonstrate to Canadian people the importance of dairy products in their daily diets.

The dairy industry has been hard hit in recent years by the intrusion of that artificial butter, margarine. It has been hampered by serious labor scarcity, being unable to compete with the high wages and short work weeks in urban industries. It has not been able to gain the price increases which the rising economy and inflation have made possible to other industries and individuals in more favorable situations. But it has gone on producing in peak volume.

Mr. Loveridge expressed some very practical ideas in his remarks. He said western farmers had better give up the idea that any government will adopt a free-trade policy for Canada, that the central provinces are too strong politically to accept such, and that farmers should aim to get their proper proportion of protection. The oldtime free traders of the west will reject such remarks as heretical. But the truth is that the agricultural west has been chasing the will o' the wisp of free trade in a hopeless fashion for too many years. The battle for lower tariffs should continue but agriculture should get a share of protection at least equal to that provided for the nation's industry.

Another reversal of the attitude of the dairy farmers' organization was intimated by Mr. Loveridge, when he said that "damning our competitors is good advertising for them," and should be discontinued. We have always believed that the dairy producers made a serious error in their public condemnation of margarine. Astute publicity aims at selling a product and not running down a competitive article. Every time a dairyman's convention complained about margarine's competition, the reaction among consumers was favorable to the synthetic product.

The dairy industry in Canada is emerging from a troublous period and seems to be in for a prosperous era. So said Mr. Loveridge, and we are in agreement. Demand has been gaining on supply and the indications are that the trend is likely to continue with the nation's increasing population. The dairy industry has a responsibility, however, in seeing that supply is increased as the population grows, and that the quality of the products is maintained.

★

Both Argentina and Russia are cutting prices on wheat exports to compete with the "cut price" policy of the U.S.A.



## How To Effectively Restrict Competition

**M**OST Canadian people realize that this immense land area known as Canada needs more people. And they will agree that immigration on a fairly extensive basis is necessary. But when it comes to their own profession or trade, people are not so enthusiastic. They do not want competition.

After June 30, 1959, a medical doctor will have to show proof of Canadian or British citizenship before he will be able to get a license to practice in Ontario. That regulation has been put into force by the Ontario College of Physicians and Surgeons, and it is obviously aimed at European doctors who come to Canada. It takes five years to acquire citizenship in this country.

In Australia the same practise has been adopted. The medical board in Melbourne approved only seven out of 100 European-educated specialists who applied for licenses. The U.S. News & World Report relates that the Australian medical board first denied the application of an Hungarian who had "failed" a test based on a medical book. Afterwards the board granted the license, when it was discovered that the Hungarian applicant WAS THE AUTHOR OF THE BOOK.

What medical councils are trying to do is not to protect the people but to curtail competition.

★

## Future Prospects For Western Agriculture

**T**HE population of Canada as at June, 1956, was 16,080,791, according to the census branch of the federal bureau of statistics. The increase over the census figure for 1951 was 2,071,362, or nearly 3% a year.

The census figures reveals some interesting facts. The combined population of the two central provinces, Ontario and Quebec, was 10,033,311, or about 65% of the Canadian total. In the four Atlantic maritime provinces there were 1,763,692 people. British Columbia's population was 1,398,464; that of the three prairie provinces combined was 2,843,821, or about 18% of the nation's total.

A glance at the figures of cropland in the different parts of Canada reveals a different picture. The total acreage of farm land under crops each year averages out at about 62,000,000.

Over 45,000,000 acres of that total, or about 73%, are in the prairie provinces of the west.

The two central provinces of Ontario and Quebec, with 65% of the nation's population, have a farm crop area which averages about 14,400,000 acres a year, or about one-third of the crop area of the prairie provinces.

The acreage of land annually cropped in the Atlantic maritime provinces is around 1,636,000, and in British Columbia only 672,000.

While the prairie provinces' population is only about 18% of the national total they possess two-thirds of the farm land under crops each year. This western region is the food basket of the nation.

As Canada's population increases, and as factories in industrial provinces absorb more and more farm land, much greater dependence must be placed on the prairie provinces for food supplies.

The agricultural west is comparatively young. In Saskatchewan and Alberta the development in farming can be measured by the span of a man's lifetime. The main problem facing farmers here is limited markets. Experts forecast that in another 18 years Canada will have a population of 25,000,000. That means the demand for food will increase by 56%. The prairie provinces is the only area capable of providing the basis of that increase.

Farm youth of today should consider these facts. Our farms of the future will require the management of capable, energetic, wideawake men whom, we anticipate, will be suitably rewarded for their ability to produce food in abundance.

★

## The West May Be Open For Bids

**G**EORGE FERGUSON, editor of The Montreal Star, told the annual meeting of the Edmonton Chamber of Commerce that western people should take a new look at their traditional arguments with the east and shift the emphasis to new fields.

He suggested that some concessions should be made in the matter of the Crow's Nest Pass freight-rate agreement, which gives the wheat producers a low rail rate on export grain. A few cents extra in getting wheat to market, he said, would be worth while if, in compensation, wider markets were obtained for the products of forests, oilfields and mines. The west hasn't the political power, said Mr. Ferguson, and can't fight on all fronts at once. Things that were of importance fifty years ago are now of less importance.

We are not going to belabor Mr. Ferguson for his remarks. He is western born and raised and for years was editor of The Winnipeg Free Press. He has intimate knowledge of Western Canadian affairs.

The west has a bargaining position in its stand on the Crow's Nest export grain rates. If any government or any group has a quid pro quo to offer in exchange for concessions on export grain rates, let them speak up. If there is bargaining to be done let us know what the other side has to offer for the benefit of agriculture.

★

**T**HE volume of wheat in Canada available for export and carryover during the present crop year is 918,000,000 bushels, according to the federal bureau of statistics. That figure is arrived at after allowing 160,000,000 bushels for domestic needs.

Up to February 13 exports totalled 153,000,000 bushels, leaving a balance of 765,000,000 bushels. Such sales are usually heavier during the last six months of the crop year, and if the total exports for the year reaches 325,000,000 bushels, the carryover will be 593,000,000 bushels.

## The Position Of The Western Indians

**T**HE threatened eviction of 118 Cree Indians from the Hobbema Reserve, south of Edmonton, may become a minor issue in the federal election to be held in the spring. There has been widespread sympathy for those Indians and criticism of the revisions in the Indian Act, which made possible the efforts to exile the group. There would not have been any trouble, however, if current protestations had been made when revisions to the Act were under consideration.

Those revisions restricted residence on Indian reservations to those with pure Indian blood, who were of legitimate birth, and whose ancestors had not accepted land or money scrip from the government between 1889 and 1900.

Those restrictions are severe, particularly on a people who have never had a real opportunity to be self-dependent. Even at that there might not have been any trouble if oil had not been discovered on the Hobbema Reserve and had not some Indians sought to improve their lot by reducing the population of the reserve. It was the action of these particular Indians which lead to the move to expel the 118 under suspicion.

From the very beginnings of Canadian Confederation the Indians have been shabbily dealt with. Sir John A. MacDonald's government, Canada's first, treated the tribes in a ruthless manner. The aboriginal Indians were the owners of this vast west by right of centuries of occupation. But the first Canadian government, through threats and various forms of pressure, compelled the tribes to sign away their rights. In return the Indians got a few dollars in cash, an annuity of from \$5 to \$12 a year, some land in reservations, some livestock and farm implements. The chiefs got a little extra money and were supposed to receive a large silver medal adorned with the features of Queen Victoria. But a penurious government at first issued silver-plated medals, until the chiefs complained.

What Canada got was a million square miles of land, including a vast area of rich agricultural acreage, and immense resources in minerals and oil deposits and also in forests.

The tribes were herded into reservations and a communal existence, which effectively prevented them from being independent, self-confident people, capable of taking their proper place among the Canadian people. Our Indians have been a neglected, forgotten people. Had Canada in 1870, launched a program of education and self-determination for the tribes, the majority of Indians would today be taking an active and useful part in our national life. Perhaps the trouble at Hobbema will awaken governments to take definite steps to rescue these people from the backwash of reservation life into a greater integration, and closer co-operation, with the people of this Dominion.

★

The government policy in Canada is to guarantee wheat producers an initial price of \$1.40 a bushel for 1 northern at the terminals, accept the greatest possible deliveries and pay storage charges on abnormal quantities carried in elevators.



## 50th Wedding Anniversary

By MRS. R. BURLIS

TWO of the earliest settlers in the district north of Cowley, Mr. and Mrs. Gus Schambron, celebrated their golden wedding anniversary early this year. Their daughter, Mrs. J. Thibert, held open house and it was a memorable afternoon.

It was 54 years ago in the early summer of 1903 that Gus first left southern Montana with a string of horses, to arrive in Alberta three months later, and start work for the Waldron Ranch. It was just three years later that Effie Nelson arrived to visit her sister and in January of the following year, the two were married and have lived in the same district ever since.

The mild weather on their 50th anniversary brought back memories to both Mr. and Mrs. Schambron. "It was 62 below the morning we were married," recalled Mr. Schambron. "It was 60 below the day before when we went as far as Cowley and the snow was two or three feet deep. We stayed there overnight and went on to Pincher Creek the next day. But we just about had to postpone the wedding. I had a cheque for four months' wages in my pocket and I couldn't get it cashed. Finally a friend of mine told me if I'd sign it and give it to him, he'd get the money for me. The next morning I asked him for my cash and he sadly told me that somebody must have 'rolled him' — he didn't have a cent in his pockets. I just had \$10 left and figured we'd have to either postpone the wedding or see if we could get married on time, but my girl had a \$20 gold piece she'd been keeping for luck, and we used that.

"When we got to Pincher", concluded Gus, "the first thing I did was file on my homestead, a quarter section about twenty-five miles north of Cowley, the same place we've lived ever since, and then we went down to Dobie's Hotel to see the preacher.

"He was the Rev. W. R. Seeley", remembered Mrs. Schambron, "and my brother-in-law and sister, Mr. and Mrs. Walling were witnesses. Afterwards we went down to the photographers to have our picture taken and there was a big sign on the door, 'Gone to the hockey game', so we had to go back when the game was over. We went back as far as Cowley that night and in places the snow was drifted right up to the roofs of the houses, just the tops sticking out. Next day we made the trip back to my sister's place, where George Dionne lives now, and that was the last time I was in town for three years.

"We figured on moving onto our own place in May," said Mr. Schambron. "I built a one-room log house for us." He paused for a moment. "I had to skid the logs out with a saddle horse because we didn't have a team. But when May came we were all quarantined for smallpox so we didn't get moved until August."

The log house was later replaced by a larger one and four years ago Mr. and Mrs. Schambron built a spacious modern home with all city conveniences and planned to retire. But the habits of a lifetime are hard to set aside and Gus and Mrs. Schambron still roll back their sleeves each morning and do a day's work that would put many a younger couple to shame. However, they are both firm believers in the old adage, "All work and no play makes Jack a dull boy", for after 50 years of wedded life, they drove gaily down to the local school-house to a dance held in their honor and tripped the light fantastic until 3 o'clock in the morning.

## Agriculture Faces Sweeping Changes

THE agricultural changes that are sweeping the world are greater than has been experienced since farming began. The small farmer is on his way out, unless he is aided substantially.

That is what Prof. W. B. Baker, director of the school of agriculture, University of Saskatchewan, told the annual convention of the Alberta Dairymen's Association, held in Calgary. He said that Western Canada is ahead in the movement which is leading to a modern industrial agricultural economy, which will mean greater stability and better times for agriculture.

The subject of Prof. Baker's address was "Dairy Farmers in a Changing World." He said dairy farmers would have to adopt modern methods and the help problem would have to be solved. This could be done by providing good housing, and the obtaining of such benefits for hired help as are available to labor in industry, such as workmen's compensation, medical benefits, etc.

Prof. Baker was chairman of the Saskatchewan royal commission which

studied agriculture in that province. He said that from 30% to 50% of the farmers in that province have been unable to make a successful adjustment and are in a state of chronic depression. From 1936 to 1951, 40,000 quarter-section farms dropped out of existence. Parity prices for farm products will not help the small farmer but will help the larger ones, he maintained.

The ideal set-up for Saskatchewan in the modern industrial agricultural economy, he stated, would be a total of 70,000 farms, 1/2 section in size in the north, 1 section in the south and 1 1/2 sections in the southwest.

The smaller farmer needs more capital in the form of credit, but he would likely be the first to reject such a plan, remembering the financial troubles of the depression in the early 1930s.

Larger farms mean greater problems, as it is more expensive to provide schools, roads and other needed services for the countryside. The motor car and better highways have sidetracked the villages and smaller towns and made the larger centres

better marketing points. In Saskatchewan 85% of the villages and towns have populations under 600.

It is important that farm children should be given a good education. From 70 to 75% of rural young men in Saskatchewan must leave the farms. Most of them will have to take unskilled jobs as they are not trained otherwise. And yet there is a shortage in all the professions in the province.

Farm mechanization, scientific research, larger farms, the substitution of capital for labor, better seeds, weed control, better breeds are all making their contribution to a new and progressive agriculture in which fewer people, working fewer hours on large areas can increase production tremendously, with competent management. Thus will dawn a better day for western agriculture.

Thatcher is still the favorite spring wheat in the prairie provinces. In 1956 the acreage sown to that variety was 44% of the total. Next came Selkirk, rust resistant, 25%, followed by Lee 6%, Rescue 5%, Saunders 4% and Chinook 3%. Rescue and Chinook are sawfly resistant varieties.

# Protection



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Safety in the automobile is optional at no extra cost. No mechanical safety device can replace the protection of careful driving.

Last year, traffic accidents claimed the lives of more Canadians than ever before. Someone was injured every 8 minutes. A car was damaged every 48 seconds. Automobile insurance claims rose to more than one hundred million dollars.

One result of this is higher automobile insurance rates — because what is paid out in claims must be brought in by premiums. But even more important is the fact that you hold your life, and the lives of others, in your hands when you get behind the wheel of a car.

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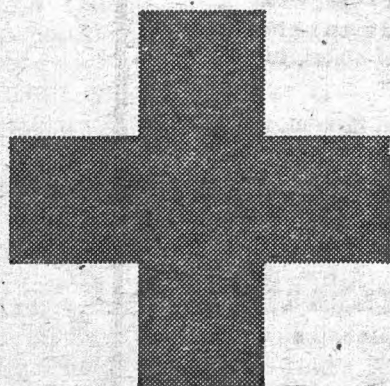
M

# is for March ...and Mercy

March is Red Cross month in Canada. Each year at this time, thousands of volunteer canvassers give freely of their time and energy to help in the work of mercy. Millions of people all over Canada also help by their generous financial support. Now, once again, The Red Cross asks everyone to contribute to help . . . to aid the sick, the homeless, the helpless, the unfortunate, wherever they may be.

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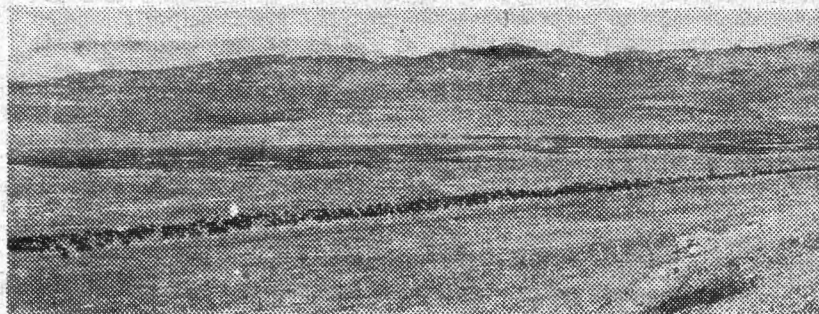


## When Ranching Was In Flower

By C. FRANK STEELE

ONE of the great ranching regions of the West is that centering in picturesque Pincher Creek. The late Chief Justice W. C. Ives, the Cowboy Judge, once declared: "The drive from Pincher Creek to the Alberta Ranch is the most beautiful in the world."

The judge rode for many of the big cattle outfits in the early days including the Waldron and Cochrane. He loved good horses and was happiest when astride a saddle horse on the open range. Judge Ives was a Pincher Creek man, son of a rancher there in the "Golden Age" of ranching in this province.



Spring roundup on the Waldron Ranch, Southwest Alberta.

Pincher Creek has an absorbing history. The first man, it is thought, to enter the area spread out over grass-clad, rolling ranch lands at the foot of the high Rockies, was Capt. Blackiston, R.A., of the Palliser Expedition. He passed through from the north, past the site where the W. R. Upper Ranch was founded, down the North Fork, naming it "Gould's Dome", as he scanned it in admiration through the Gap, after the famous English botanist, Dr. Gould. Blackiston named the Livingstone Range and a creek is named for him in Waterton Lakes National Park.

Father Lacombe, the famed missionary priest to the Indians, traversed the region enroute to Montana in 1869 from Edmonton. He was looking for a water route from the south via the Missouri River as up to that time Alberta had been reached by way of the Hudson's Bay route in the north and east. On the priest's right rose the rugged, lilac-hued shoulders of Chief Mountain, a landmark through the ages, first to the Indians on the Great North Trail, then the cattlemen, the "lords and commons" on the grasslands of the southwest.

### Coming of the Mounted Police

The Mounted Police built a post at Pincher Creek soon after Fort Macleod was founded in 1874 and John Herron, "Honest John" they called him when he was elected a member of parliament, was a member of the post. He was an early rancher there as was A. H. Lynch-Staunton, a name importantly linked with Pincher Creek's colorful history. It was in 1883 that R. Lynch-Staunton of the Antelope Ranch on Tod Creek, accompanied his father F. H. Lynch-Staunton, D.L.S., from Ontario to Southern Alberta as far as Medicine Hat. They were miles ahead of the steel of the C.P.R. headed for the Rockies, thence to the Pacific coast. He returned in 1886 settling in Pincher Creek, acquiring his ranch on Tod Creek from Lloyd Brothers.

Other early ranchers was the Wildcat spread established by W. R. E. "Smithy" Smith, who came into the country from Montana as early as '82 with a bunch of cattle; the Meade ranch, also of Tod Creek or Todd Creek as it is sometimes spelled; the Few Ranch on the North Fork, stock- ed by 2,000 head of cattle which

carried the "111" iron. The Garnett Ranch was the first in the foothills of the Crow's Nest Pass where the bunch grass was abundant. The Garnetts came in from Fort Benton, and the famous early settler F. W. Godsall, finally acquired 20,000 acres of leased land from them.

William Lee, whose name is carried by Lee's Creek at Cardston, where the first Mormon settlers under Charles Card pitched their tents in 1887, and Lee Lake in the Crow's Nest Pass country, was a very early settler. The Lee Lake ranch was later acquired by J. L. Parker.

The famous Windsor Hotel was built at Lundbreck in 1906, and many

famous persons stayed there: Sir Sam Hughes, a brother of Lord Roberts and Louis Hill, president of the Great Northern Railway, among them.

### Oldtime Ranches

One of the great ranches was the Alberta. The Alberta Ranch is linked with such famous names as Sir F. DeWinton and Sir F. F. Mackenzie and R. Duthie was ranch manager. The Alberta bought the government herd of cattle using the "Crowfoot" brand. The cattle were sold to the Maunsells in 1903. In 1884 the Alberta Ranch held a 15,000-acre lease spread. Bell Bros. ran 5,000 head of cattle and Lynch-Staunton, 8,000 head.

The Hatfield Ranch on the Dry Fork of the Kootenay (Waterton) River south of Pincher Creek is one of the old cattle spreads in the foothills. It was established by Herbert Maynard Hatfield in 1889 and for over half a century the original owner operated it. Born in Hartsdown, Kent, England, the pioneer stockman came to Canada in 1886 and was partner for a time of the famous Lord Brook, a notable character of the Waterton country. The ranch covered 6,440 acres of deeded land and 1,400 acres of leased land.

Mr. Hatfield was one of the original members of the Western Canada Stock Growers' Association formed in 1908, and was on the first executive. The ranch sold some of the best remounts raised in this country to the Mounted Police in the early days.

### Ancient Trails

Along with the cattle outfits of the '80's and later in Southern Alberta we have the romance of the old trails of which it was often said: "All trails lead to Fort Macleod." Being the oldest and most central point this was largely true. From the famous old police post and trading centre trails ran north to Calgary and thence by way of Blackfoot Crossing to Fort Whoop-Up, the notorious whiskey fort near Lethbridge; east to Fort Kipp and far to the east Fort Walsh, the Cypress Hills and Wood Mountain. Then southeast of Fort Macleod stretched the famous Benton or Whoop-Up Trail into Montana territory. West of Macleod was the trail to Pincher Creek. Waterton and the Crow's Nest Pass.

Red River carts were used with ox-teams, prairie schooners (canvas-covered wagons) with string teams and Police used buckboards or democrats. Saddle horses were, of course, much used. The Indians rode ponies or travois — teepee poles trailing from the saddle with pack swung between. It was a friendly period and all were neighbors in the best sense. Folk on the frontier helped each other for it was pretty much a case of hanging together or perish.

It takes about 3,000 bolts to hold a car together, but only one nut to scatter it all over the countryside.

Mamma to small boy: "What did papa say when he saw you had broken his pipe?"

Boy, hesitantly: — "Will I leave out the swear words?"

Mamma: "Yes, dear, of course."  
"Well then — I guess he didn't say nothing!"

Landrace will give you bigger litters of stronger pigs that grow faster at Mother's side, and grow to market weight in 4½ to 5½ months, on less feed per pound of gain, with much more meat and a lot less lard, to return more dollars to the producer, and a lot more pleasure to consumer. Send for Folder. Weanling, two-months-old, six-months-old sows and boars. Bred sows and serviceable boars for immediate delivery. All from imported stock.

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## Soup Plant at Portage

The Campbell Soup Company will provide Manitoba farmers with a new outlet for a great variety of farm produce when the new multi-million-dollar soup plant starts production at Portage la Prairie.

When Premier Douglas Campbell announced that construction of the plant would begin this spring, he said that it would eventually require a constant supply in large tonnages of all vegetables and barley, as well as large quantities of poultry and meat.

When completed in 1958, the plant is expected to provide a tremendous boost to the economy of Portage la Prairie in particular and Manitoba in general. Basically an agricultural industry, of course, it will eventually support the workers and families who run the plant (estimated at a total of

about 1,600) and give a ready cash return for the farmers of the province who can supply the expected demand for produce.

For its Portage operations, which will see 17 of the 21 varieties of Campbell Soup produced, the company will make a major market of peas, corn, potatoes, barley, cereal, onions, and mushrooms, to mention a few of the items required. Frozen food lines and both macaroni and spaghetti will be included in the operations.

### Tractor Operation Costs

THE Manitoba Illustration Station at Brandon has established some figures for the fixed cost of operating farm machinery. They considered three fixed costs, namely, depreciation, interest on investment and general repairs.

Tractors are rated as having an

estimated life of 10,000 hours for the initial cost of \$3,000. Assuming an average use of 600 hours per year, the depreciating rate will be 30 cents an hour.

Interest is generally computed at the rate of the local bank, and in most cases a charge of six per cent on one-half of the replacement value is considered fair. On this basis the hourly charge for interest will be 15 cents per hour.

Tractor repair charges for the machine are based on 80 per cent of the replacement value of the machine, and amount to 24 cents per hour.


To be added to the above are the costs that can not be fixed — the hourly cost of fuel, oil, grease, and labor. For custom work it is considered fair to add about 30 per cent to the basic fixed rate as a protective measure for the owner of the machine.

### NUFFIELD SCHOLARSHIPS

J. C. Kitching, 31-year-old Manitoba farmer, has been selected as one of the two young Canadians for a six-months' study of agriculture in Great Britain, under the Nuffield Foundation scholarship plan. Mr. Kitching farms 800 acres at Carman, producing poultry, cattle and seed from special crops. He is president of the Carman local of the Manitoba Dairy and Poultry Co-operative Limited, a member of the district board of the Manitoba Federation of Agriculture and Co-operation. A special interest of Mr. Kitching's is farm management and farm consultant services, and in particular the development of accounting clubs, in co-operation with the University of Manitoba. In this field Mr. Kitching has been a leader in his community.

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It brings you all that's productively new in farm power, for greater farm efficiency, greater farm profits. International Torque Amplifier drive is standard equipment on this great tractor.

A full line of options include Diesel engine, 1, 2 or 3-valve Hydra-Touch hydraulics, power steering and many more farm-easy features to fit the Wheatland Special to *your* special jobs.

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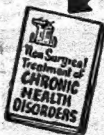
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## Stock Growers Hold Annual Convention

WHEN the Western Stock Growers' Association holds its annual meeting the members attending make their presence felt. The present generation of cattlemen seem to appreciate the time-honored tradition of their industry, which flourished long before the plows of the first settlers broke the prairie sod. They also have an understanding of the respected place their cattle-producing business holds in the agricultural field and the substantial wealth it brings into the country each year. So they attend their convention, most of them attired in typical range fashion, and they hold their heads high.

The convention was held in Cowtown Calgary this year and lasted for three days during the second week of February. The program covered a variety of subjects, there was discussion aplenty, and sometimes emphatic, business was transacted speedily and there was plenty of entertainment between sessions.

President John Cross opened the 61st annual convention, held this year in the new agricultural building of the Calgary Exhibition and Stampede. He commented on the improved quality of Alberta cattle over the past few years. He said the time has come when young bulls, with ability to put on fast and economical gains, are being sought by cattlemen. He also expressed the hope that the pure-bred cattle industry will soon make performance-tested bulls available.

Mr. Cross also expressed the opinion that the general public does not appreciate the huge amount of capital required for the industry, the risks taken by the producer, and the value rendered by converting a substantial volume of surplus grain to a fine human food.

### Secretary's Report

E. A. Chisholm, secretary, reported



John Cross, President  
Western Stock Growers

that the membership stood at 2,123 as at December 31st, 1956. During last year, 597 new members were added. Some 324 failed to renew.

The association continued to press for completion of tuberculin testing, and a staff of eight additional veterinarians worked along the foothills and untested northern regions.

The executive interviewed Dr. Balfantyne and Dr. Morrow of the Alberta Veterinary Service, with regard to the spread of vibriosis in cattle herds and obtained co-operation therefrom. The disease has been costly in the loss of calves when introduced into a clean herd.

Western Stock Growers Ltd. was formed to make available vaccines, instruments, leather goods and salt to the membership.

Arrangements were made to make farm and ranch liability insurance available through group coverage at a lower cost to members of the association, through the Canadian Indemnity Co.

As the result of a questionnaire 95% of the members expressed the opinion that hunters should be allowed on property by permission only, and a brief making that request was submitted to Hon. Norman Willmore, the Alberta government minister in charge.

Three regional meetings were held during the year and met with unqualified success.

A brief protesting increased railway freight rates was prepared by Ralph Thrall and presented to the board of transport commissioners.

### Association Finances

Charles McKinnon presented the treasurer's report which showed receipts at \$12,152.39 and expenditures at \$13,173.73, showing a deficit on the year's operations of \$1,021.34. Membership receipts totalled \$11,261.65.

He said that the association has been drawing on its reserves for current expenditures and more cattle

raisers should join to help the work along. He outlined the accomplishments of the organization and said everyone in the cattle business benefited therefrom.

Later on membership fees were established by resolution as follows:

The sum of \$5.00 per member per year with annual dues at the rate of 10c a head for all raised cattle sold, plus 6c per head of all calves sold, plus 3c per head of all cattle purchased and sold; sheep to be assessed at one-fifth of such rates.

### Panel Discusses Selling

A PANEL discussion on cattle marketing brought out much information. The chairman was Grant MacEwan and the subject, "Does the Livestock Producer Get a Fair Deal at the Terminal Markets?"

Charles Kennedy, manager of Alberta Stockyards Ltd. at Calgary, said the yards provide competitive buying, security for the producer, and a ready market. The Calgary yards cover 21 acres, five commission firms and one speculator operate thereon, the charges are moderate, \$1.50 commission per head on cattle, plus a yardage charge of 85c, and are as low as anywhere, except community sales. In 1956, cash sales totalled \$45,000,000. There are 21 men working 52 weeks in the year for the producer. The only congestion as a general rule is for a few weeks in the autumn.

Dr. G. L. Burton, rancher, Claresholm, said the Calgary market was one of the best, if not the best in Canada. Its effectiveness depends on the number of buyers present. He was concerned about packing plants buying up small plants as this reduced buying competition. He thought auctioneers should not sell on a fixed fee basis. (The fee is 25c a head.)

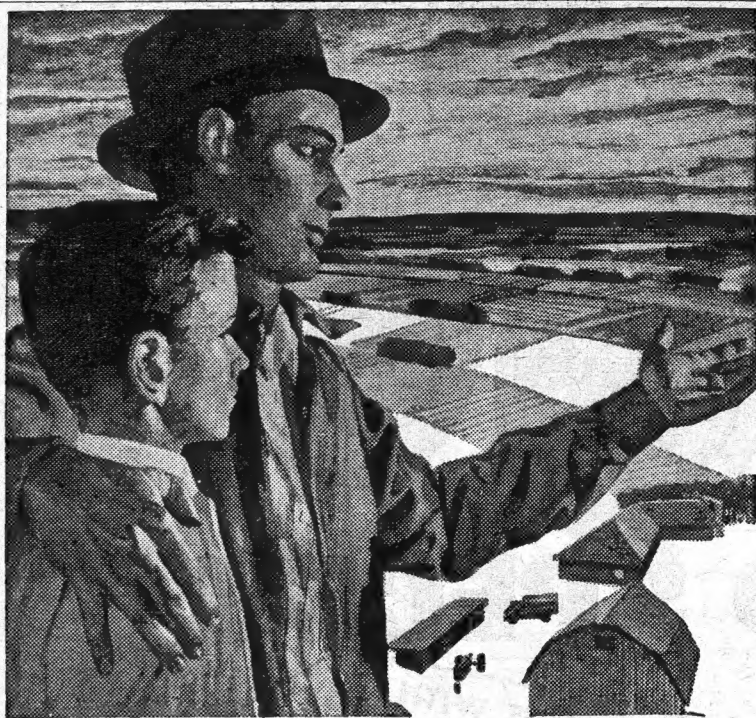
E. S. Manning, managing director, Meat Packers' Council, said packers want the opportunity to bid on every animal offered, and buy wherever they are offered. The packers do not get together to agree on prices. The consumer is the person who sets the price. Truckers are paid for services rendered.

George Winkelaar, manager of the Alberta Livestock Co-op., said the stockyard method of selling provides the only price protection available to producers and every effort is made to get the best possible price. At Calgary the best auctioneers operate and they get a commission of 25c, which is paid out of the total of \$1.50 per head for selling and so does not add to the producer's expense. The public market is the only place base prices can be established. A producer is competing against himself if he sells direct.

Carl Anderson, manager of the Eastern Irrigation District, Brooks, Alta., said there was a time when producers of livestock were properly "rooked", but stockyards selling and more information by radio and press had changed that considerably. By-passing the stockyards and selling direct to packers' market hurt the whole trade. The producers expect loyal, honest, efficient service from salesmen at the terminal market.

President Platt, of the Alberta Farmers' Union, spoke for closer relations between the various farm organizations. He said that on many matters there could be general agreement and on questions where there was a difference of opinion they could agree to disagree. Mr. Platt said the F.U.A. is backing a plebiscite on the formation of an egg marketing board in Alberta.

(Continued on page 12)



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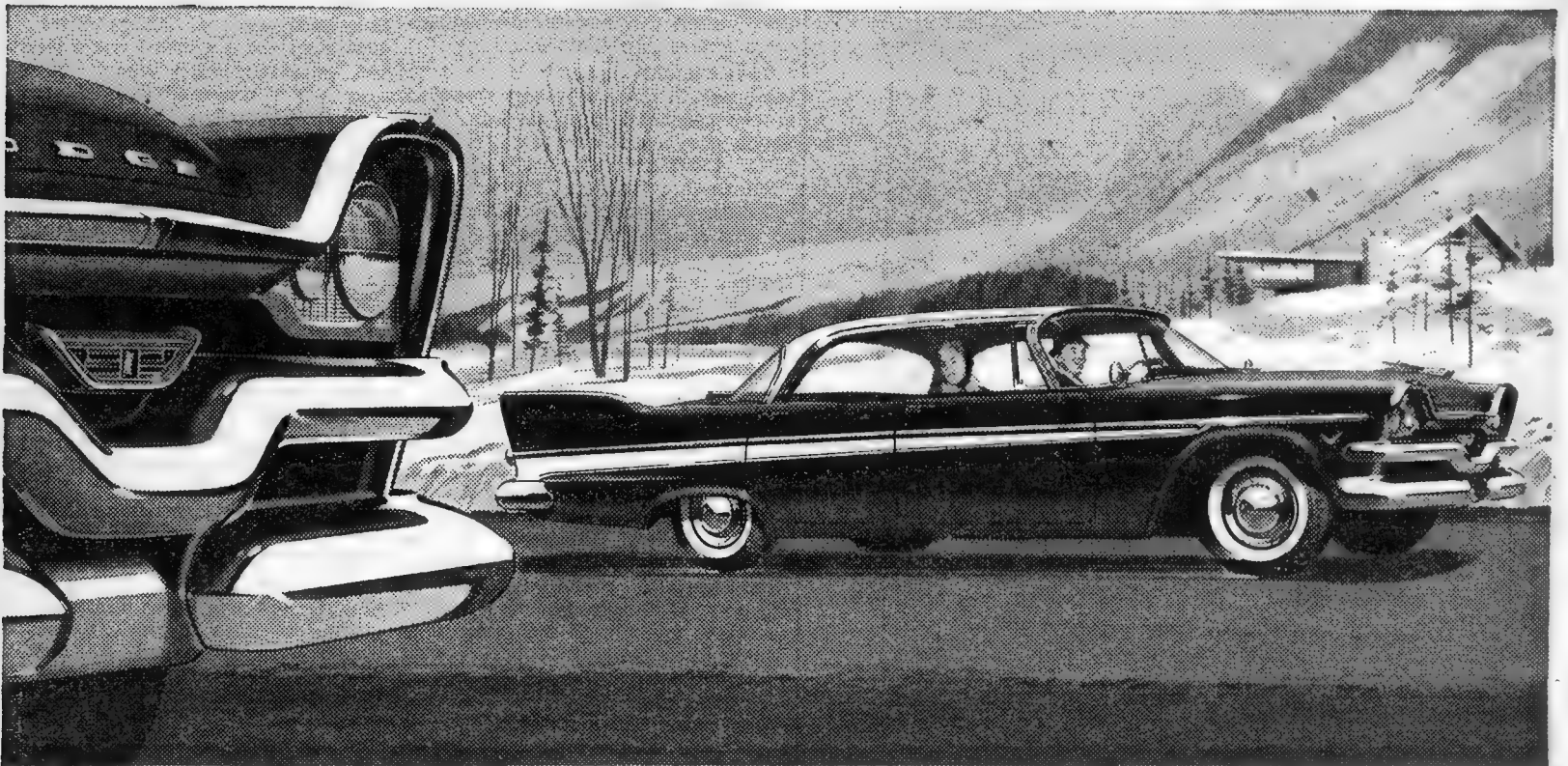
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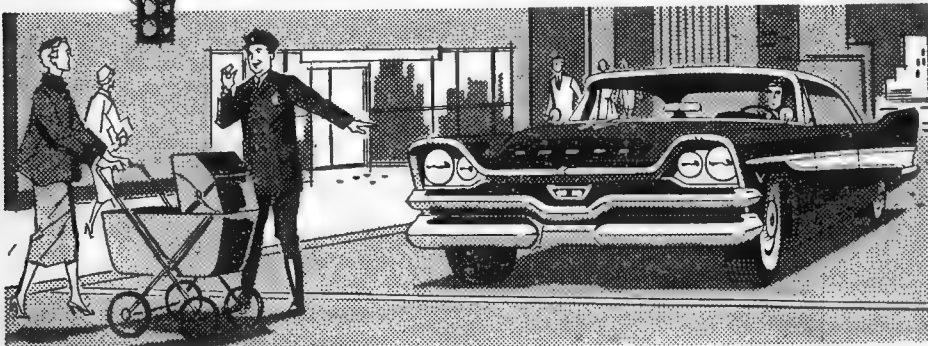


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# STOCK GROWERS (Continued from page 10)

## Keep Good Records

K. J. Morrison, C.A., of Calgary, spoke on "An Accountant Looks at the Ranch Business", and gave the convention some good advice.

"The federal minister of revenue is a partner in your business and you must keep good records," he said. "A complex system is not needed and a simple, accurate accounting will be sufficient. Pay by cheque and not by cash and that will simplify matters for you, and save a great deal of trouble."

Mr. Morrison said he knew of one farmer who said he had kept a considerable sum of money buried on his farm. A city man hid a bundle of cash in his basement and forgot just where it was. Such things, when brought to light, cause a degree of suspicion in the income tax offices.

The speaker explained two systems of operation, either by the annual

cash basis or by the inventory basis. At times the income tax people ask for a net worth statement to check same against annual operations statement.

Mr. Morrison said there are three ways of doing business, as an individual, in partnership (but be sure you get the right partner) and in a limited company.

He also explained how a basic herd can be established, which will reduce taxation as the basic herd is regarded as capital. The manner in which farm income can be averaged over a period of years was also dealt with. For each year an income tax return must be filed with the tax office before April 30, whether taxes are payable or not. There are other details to be carefully followed.

What Mr. Morrison emphasized the most was "keep good records."

The most insecure people on earth are those who are forever playing it safe. — Bertrand Russell.

## Beef Grading Policy

ELGIN SENN, chief of the federal livestock grading department, spoke on "Canada's Beef Grading Policy". He explained the various grades of beef. While hog grading is compulsory that is not so with cattle but government graders will grade cattle on request. Last year some 28,600 cattle were carcass graded, which is quite an increase over previous years. The government is not pushing carcass grading of cattle. Beef grading in the carcass is more difficult than hog grading. If the producer wants to he can be at the packing plant and see his beef graded in the carcass. The federal graders will not weigh the carcass as weights come under the provincial government. There is the question whether payment should be made while the carcass is cold or warm and also of designating the ownership of cattle so graded.

Mr. Senn said government graders in Canada are carefully trained and the best in the world. However, the question of the human element always enters into the work.

The current demand is for lean beef, which the consumer believes is cheaper, and also is influenced about the scare over fats causing heart trouble. "The wife doesn't want to buy fat meat for her soft-muscled, city-bred husband for fear he gets a heart attack," the speaker asserted. Fat steers are out of fashion, except perhaps in restricted circles, but the mass of ordinary people want lean meat. Some of the finest cattle at the Toronto Royal Winter Fair were considered by buyers to have too much fat.

The federal government has taken a close look at the spread in market prices between steers and heifers of the same grade and weight. A comparison of eight years average sales records on the Montreal, Toronto, Winnipeg and Calgary markets, shows that the spread varies according to the market, but is generally greatest in the late fall and early winter when the bulk of heifers come on the market. With the figures so far available, it appears that the lower prices for heifers are due to the smaller dressing percentages of heifers, more waste in preparing wholesale and retail cuts and a smaller percentage of the heifers going into the higher-priced retail cuts.

## CONVENTION NOTES

Elgin Senn, chief government grader, said beef cattle producers should pay more attention to the length of the hind quarters. The dairy breeds have long hind quarters, he said, and there has been a tendency for short hind quarters in beef cattle.

\* \* \*

The Canadian Indemnity Co. is providing coverage to members of the Western Stock Growers' Association on a group basis at a favorable rate. The need for protection of that nature is becoming more apparent as time goes on.

\* \* \*

Milt Ward told the convention that there is no merit in the suggestion of the Fish and Game Association that a fund should be established to recompense farmers who have had stock shot or damage done to property. Mr. Ward said that a court case would have to be held and evidence presented and it would be impossible to pin the damage on some hunter whom nobody had seen.

\* \* \*

In Greater Vancouver meat is sold on a graded basis. The graded beef is marked with a vegetable dye on the wholesale cuts.

## Predicts Cattle Cycle Downturn

**SPEAKING** on the subject, "Where Does the Cow Business Go From Here," Wayne Darrow, of Farm Reports Inc., Washington, D.C., said the opinion of experienced observers of the cattle business in the United States is that a downswing in the cattle cycle has already started in that country. He has had a lengthy and broad experience in the business.

"Conditions are different in Canada, as demand here is evenly balanced with supply," he mentioned, "and I will be interested in seeing if the trend will be different here in this country."

Cattle cycles run in uncertain periods, the average being about 11 years. There was a peak in 1920, ended by drouth, in 1934, also drouth, in 1945 caused by the war's end and now likely in 1956.

The midwest United States has suffered from drouth intermittently since 1950, and the last two years have been very bad. In parts of Texas, the drouth has been the worst in recorded history. Rivers have been drying up and a general water shortage exists in many areas. In one town water was sold at \$1.25 for 5 gallons. If general rains do not fall before the end of April a very serious situation will develop. And the percentages of the various farm products produced in the drouth areas, as compared with the total U.S. production are: wheat 53, beef herds 37, and sheep 34.

The U.S. farmers have been caught in a cost-price squeeze, the speaker said. Their capacity to produce is enormous under ordinary conditions. The reason many of them have got by is that they had a number of good years after the war and were able to clean up a lot of indebtedness. Farms are getting larger and the population smaller, having declined from 25% of the nation's total in 1940 to 13% at present.

Canadian livestock prices have been better than those prevailing in the United States during the past two years, the speaker said. U.S. stockmen have been producing surpluses, production of red meat being 163 lbs. per capita. When the figure gets over 150 lbs. the producer is in trouble. Where the meat producer used to get 5.8% of the consumer's dollar he is now getting 4.8%.

The squeeze against the farmers and ranchers cannot go on indefinitely without hurting the economy, the speaker asserted, for the farmer is a substantial customer for goods and services. The U.S. farmers as a group are the biggest buyers of oil products in the world. They use more oil products than either the U.S. army, navy or airforce, as separate entities.

The downward turn of the cattle cycle will probably be reversed in 1959 or thereabouts. While finished cattle of choice quality should hold prices fairly well, the lower grades are likely to go down.

The stock growers to a man are opposed to the present legislation regarding hunting. A resolution was passed asking that the act be changed to permit hunting on all lands by permission only.

The convention passed a resolution asking that an independent board of appraisers value land and damages incurred under expropriation proceedings.

\* \* \*

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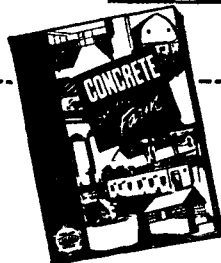
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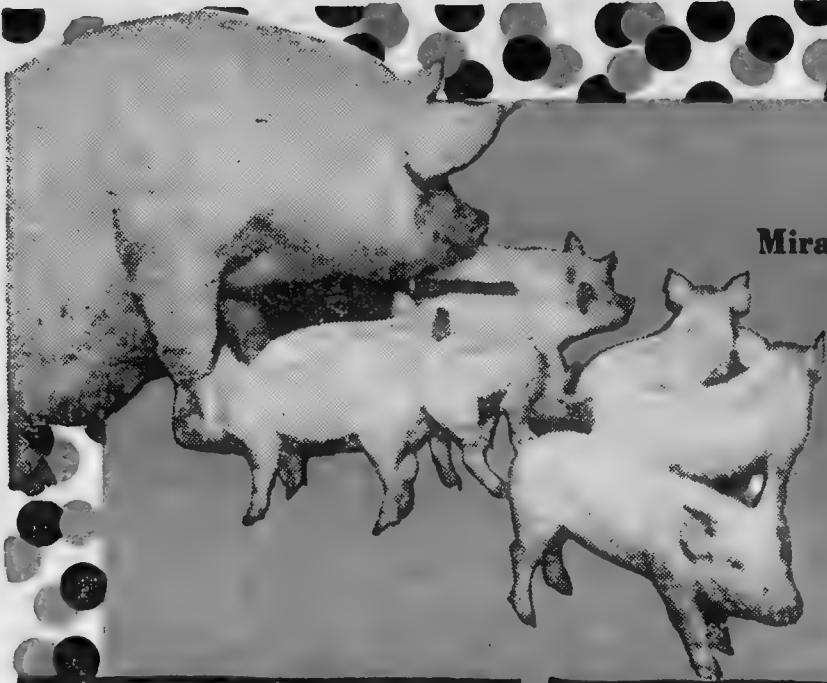
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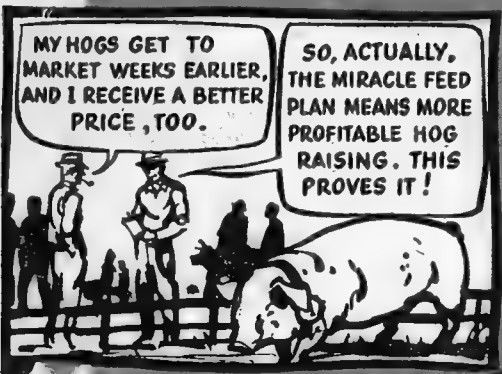
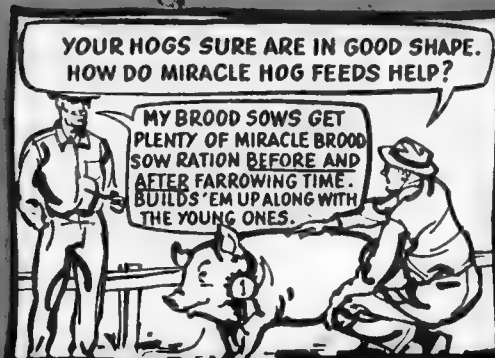






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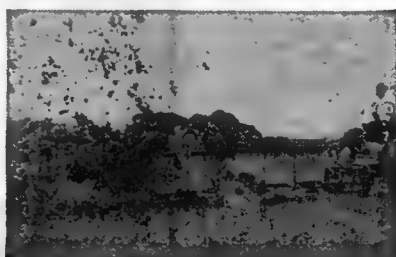
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## The Need For Conserving Canadian Resources

By GRANT MACEWAN

**FAIR WARNING!** This is about our handling of natural resources and the story may be slightly gloomy.

One century ago, Western Canada's agriculture was confined to two narrow ribbons of farms beside the Red and Assiniboine Rivers, close to the present Winnipeg. In the vast country between there and the Rocky Mountains, prairie buffalo numbered in millions; soils were undisturbed and out of danger from erosion; Nature's community was in a secure state of balance; water levels in the North and South Saskatchewan rivers were high enough to be inviting steamboats; and oil and gas were still in hiding.

The intervening years saw the influx of wealth-seekers and some exploitation followed. The reserves of resource capital are still high because of the fabulous legacy bequeathed by a benevolent Nature but it would be neither sensible nor honest to ignore some striking losses due to the white man's ambition and greed.

A few bird and animal species have become extinct or almost extinct; oil reserves have been reduced by close to a billion barrels; forests have been allowed to shrink; water tables have fallen; soil erosion by wind and water has left its ugly scars; a few million tons of good soil have gone down the Saskatchewan, Red and Peace Rivers; and the harvesting of 17 billion bushels of wheat meant the withdrawal of something over 10 million tons of nitrogen, 4 million tons of phosphate and 2½ million tons of potash, with extremely little of these chemical foods returned to the soil.

### Dissipation of Fertility

A bulletin from the Department of Soil Science at the University of Saskatchewan, sums up that situation with respect to soil depletion this way: "Every bushel of grain, every pound of beef, or gallon of milk sold off the farm means some removal of nitrogen, phosphorus and potassium and other mineral nutrients from the soil. Fifty years of cropping has already removed as much as 20 to 25% of the original supply of nitrogen and phosphorus from Saskatchewan soils. No wonder our lands are beginning to respond to fertilizers."

In congratulating ourselves on greatly increased wealth, there is a tendency to forget that it was gained in part by liquidating capital stock in resources. It leads one to enquire about what further inventory losses we may face in the next hundred years. What other animal and bird species will be allowed to follow the passenger pigeons into extermination? What further net depletion of forests and soils? How much oil and gas will remain in Alberta, Saskatchewan and Manitoba by the year 2057, with the United States already running short of gas and expecting oil production to begin declining in ten to fifteen years from now? How much poorer will be the legacy of resources to be passed to succeeding generations?

Without a determined effort to use resources wisely and halt wastage, the rate of loss may very well accelerate. Civilized man has made a reputation for exploit and extravagance and in the various parts of this continent, the depletion of resources bears a striking relationship to the length of time the white man has been in occupation. Mexico, having had the longest association with white men, has suffered most from erosion so much, indeed, that one writer forecasts the country will be mostly desert in a hundred years,

unless new methods are adopted. The southern states with nearly as long an experience with modern man, has nearly as bad an erosion record.

### Loss of Cropland

And in the United States as a whole, according to Dr. Hugh Bennett, former Chief of Soil Conservation, 50 million acres of cropland have been lost as a result of erosion and another 50 million acres have been severely damaged and almost lost. That is serious in the life of a nation, especially one with 160 million people to feed. The Mississippi River alone has been blamed for carrying 300 million tons of United States soil a year into the Gulf of Mexico. It means the rough equivalent of a 34-acre farm to plow-depth going past the City of New Orleans, on its way to the ocean, every hour of every day in every year.

Since 1933, when the United States Conservation Service was started, that nation has made a splendid effort to arrest soil losses, by taking sub-marginal lands out of cultivation, planting trees on steep hillsides, grasses on rolling land, encouraging improved cultural practices, and so on. It has been a good program but late.

Canadian soil, with a shorter cropping history, has suffered lighter damage than United States soil but neighboring experiences should serve as warnings. Fields in the Canadian Mid-West suffered a good deal from wind erosion in the '30s and from water erosion since. And western rivers are, for the most part, soup colored from the rich silt being carried away.

There must be no relaxation in guarding soils. Canada's Prairie Farm Rehabilitation Act took effect soon after the ambitious United States program was inaugurated and has a good record — more than 60 community pastures with over a million and a half acres stabilized by a blanket of grass, 200 thousand acres re-grassed, over 50 thousand water conservation projects, big and small, and about a million acres of irrigable land. Now there is a proposal to extend federal policies for conservation to cover all of Canada. It's timely but government policies will never be effective without individual guardianship on the part of farming people across the country.

Of course, resources are to be used but not used wastefully or recklessly. Conservation is simply conscientious management and we haven't always had it. Exploitation sparked by the common urge to get rich quickly has been costly to Canada as well as to United States and too often, what was called development of natural resources meant draining them away or using them up.

What happened to the passenger pigeons, present in countless millions a century ago, almost happened to the prairie buffalo, the pronghorn antelope, prairie dog and some other noble kinds. The barren land caribou seems to be in serious trouble, as is the whooping crane, kodiak bear, prairie chicken and some others. Many of our hunters are conservation conscious but, unfortunately, there is still carelessness, symbolized in the 1956 hunting season by the shooting of a Hereford cow, "mistaken for a pheasant," and the killing of a truck driver "mistaken for a deer."

### Forest Conservation

Over the years, Canada's inventory of forest trees has been reduced because replacement and growth have



not kept pace with cutting, burning and destruction from insects and disease. There should be constant reminder that forests, occupying 42 per cent of the nation's land surface, provide, directly and indirectly, work for half a million Canadians and a gross return of three billion dollars. Pulp and paper are together the largest source of Canadian wealth and thus the extreme importance of the tree crop should be evident. Forest protection is everybody's concern.

Forests do more than furnish logs, pulp, fence pickets and pit props. Their value in water conservation is one which farming people across the prairies should recognize. It's as simple as this: if forest cover on the Eastern Slopes of the Rockies were destroyed, many of the streams flowing eastward would run wild with floods in the spring and be dry in mid-summer. If those same streams were to fail, irrigation, power development and domestic water supplies affecting thousands of mid-western residents would suffer.

With a realization of the importance of tree cover on that Eastern Rockies watershed, the Canadian and Alberta Governments set up the Eastern Rockies Forest Conservation Board in 1947 with a 25-year agreement for operation. The first tasks were to halt destruction from fires, insects and disease and determine what combination of trees and grasses would be most effective in impounding rain and snow water and holding it against evaporation. Roads and trails to serve the 9,000 square miles were essential for fire-fighting and now, summer tourists are permitted to enjoy the exceptional scenery offered by these roads.

Today, at the end of nine years, that, the biggest conservation project of its kind in the world, is being judged a success, with trees in the particular area growing as fast or faster than they are being cut and destroyed. That's more than can be said in most forest districts across the province or the nation.

But let's say again that the Eastern Rockies project is of more than local importance; fact is, the purpose is to serve all the Mid-West where water tables have fallen, stream levels have dropped and where, in years ahead, with increased population, water shortage could be serious, with communities battling for supplies as they are doing today in parts of the United States.

Perhaps there is now a new determination to achieve "sustained yield" in Canadian forests generally, thus taking no more in lumber and other forest products than will be restored with a year's growth. The first step must be in reducing forest fire havoc. In a recent year, Canada's score was 5,300 forest fires, 4,000 of which were caused by human carelessness. An estimated 400 million young trees were destroyed.

Canadians can take a lesson in forestry from the Scandinavian countries and the United Kingdom where the rate of damage is but a small fraction of what it is in this country and where forest policy demands a tree planted for every tree cut.

We want the forests and soil and water and wild life to last forever and the oil and gas as long as possible. We don't want it to be said by a later generation that we were reckless and thoughtless, that every time we took stock of our riches in resources the inventory was found to be down sharply, that in departing this life we left big cash balances in the banks but overdrawn accounts underground.

The challenge is conscientious management of soil and other resources.

## Return Of The Wild Geese

By IRENE LOUISE HARRISON

FROM out of space comes a hoarse, croaking sound, at first far away like a dim memory stirring, then becoming louder and more insistent. There is a whisper of wings and, glancing heavenward, they seem to be brushing against the sky with each long slow sweep which brings a large, black V etched against the evening sky.

We live in the direct line of flight of the wild geese, though it is rare indeed when they light in the vicinity. When they do excitement runs high.

The wild goose is often described as "silly", but naturalists studying the goose claim them to be one of the most interesting and cleverest of birds. They have very distinct personality traits. One being that they mate only once in a life time. If fate befalls their chosen life partner, they go through the remainder of their life alone. Study has shown that the goose appears to grieve for a long time over the death of its mate.

Unlike humanity, the geese know exactly where they are going. They set out in a direct line for their destination. There is no dawdling around or uncertainty on their part. The largest and strongest, and perhaps the wisest, gander takes the lead, and the others fall in behind in a V formation. Lakes, mountains, hills, forests and cities dissolve beneath their flowing flight. The miles are beat out with a rhythmic sweep of their wings as they migrate north in the spring and southward each fall.

As the geese pass over head, I have often noticed the one in the lead falter and slip unobtrusively to the rear of the line. At the same moment another will move up to take the place of the tired leader. The change is made in the twinkling of an eye, without one rhythmic beat of the flight being disrupted. Under their new general they fly on, straight as an arrow, until they are swallowed up by distance. For several minutes after they are no longer visible to the eye, I can follow their flight by the guttural noises drifting back to me.

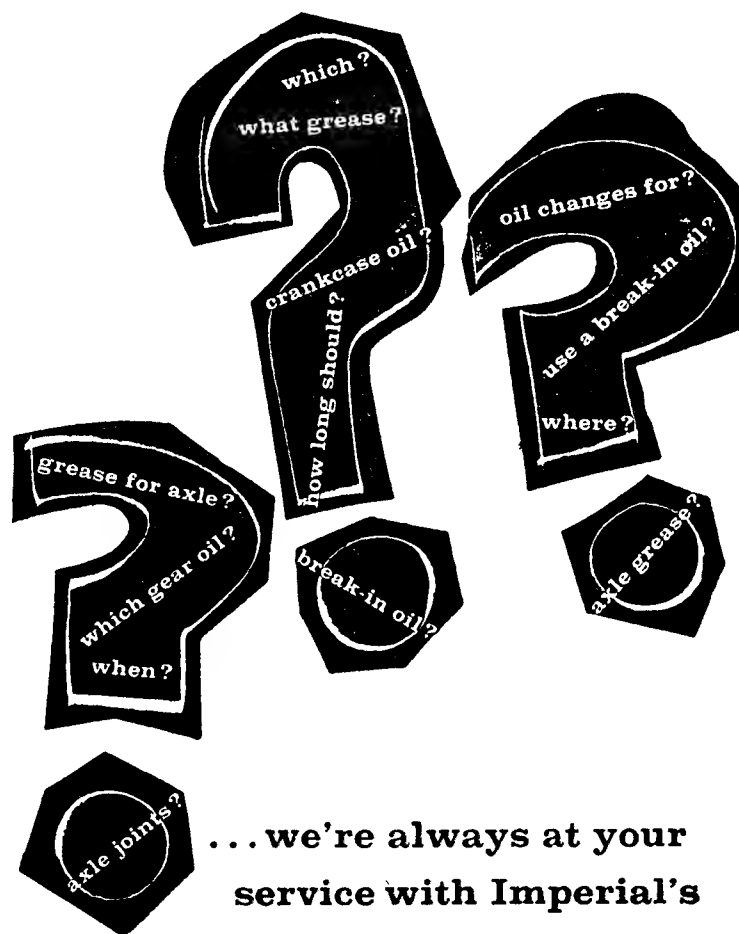
Others more gifted with the pen than I, have called the V of the migrating geese, Canada's signature scrawled against the sky.

In one brief moment of passing, in one rustle and swish of wings, all the collective memories of Canada live again. In a language mute and beautiful the V speaks of the Indian wigwam — dark silhouettes against the camp fire's glow; of hunters home from the kill, and warriors bewildered but blood-thirsty, defending their hunting ground against something they do not understand. It speaks of the adventures of our pioneer fathers. It brings back memories of their journeys deeper and deeper into the land of the wild goose by canoe and barge. In a tongue of motion rather than sound it tells of the long trek, of the portages, of the vast lonely country, silent and mysterious, broken only by some sound of the wild and untamed.

Since the earliest days, the white settler has paused in his toil to follow the flight of the wild geese with his eyes. He has marvelled and wondered, and returned once more to his task with renewed hope. His back, bent with the endless grubbing, somehow seemed more rested. His wife's eyes brightened, and a little song of hope bubbled to her lips, as the call of the wild geese floated down. To them it was the living proof of God's promise "That seed time and harvest shall not fail."

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## Elves After Sundown

By KERRY WOOD

A FRIEND invited our family to his home to see self-made movies, promising that he had something special to show us in addition to the usual family groups standing self-consciously around a car or chewing on sandwiches next a picnic fire. When the small projector got whirring and we finished viewing his flower beds and lakeside boating scenes, there came a close-up of a woodpecker hole in an old poplar tree.

"Now watch this!" said our friend.

We were already watching closely, yet it came as a delightful surprise to see the large-eyed animal come scampering down the trunk of the tree towards the hole. For a moment the beautiful creature hesitated, turning its lovely eyes towards the camera. Then it reached hand-like front paws to grasp a piece of brown toast tucked into the bark under the

hole. Half the toast broke and fell, though the animal had managed to secure a generous portion. With the prize firmly grasped in its mouth, the star performer went nimbly into the hole and out of sight.

"I'll reverse the film," our host offered, whereupon the animal appeared to back tail first out of the hole, miraculously put the broken toast together, then scampered backward up the tree and out of sight. A click of a lever made the film roll the other way, which gave us a chance to see the little creature repeat its acting role on the screen.

It was the nicest home-movie of a flying squirrel we had ever seen, and in full color too. These animals are rarely snapped by any kind of camera, because they are such nocturnal creatures. My friend had chanced to bump against the dead tree next his lake cottage, whereupon the mother squirrel had flashed out of the hole and swooped across to a nearby spruce. This alerted our host to his unique find: a flying squirrel den (properly, a "dray") was in the deserted woodpecker hole and later investigation revealed that she had a family of soft-whistling young in there. Unfortunately our friend was only able to spend week-ends at the cottage and was not around when the young squirrels left the home tree to get pictures of that event. However, during two successive week-ends, the mother animal posed for him and seemed pleased to get food offerings of toast, oranges, and other titbits placed near the den-mouth.

### The Frisky Family

Flying squirrels are always trustingly tame, even when encountered in wild woodlands far from any settlement. On a moonlight night in a foothill forest, I watched the fairy-like creature swoop across an opening in a pine and spruce glade. I chanced to be in the lucky position next a landing tree when a mother squirrel came swooping diagonally across space and made a swift upward turn at the end to flatten herself against the rough bark of a spruce near me. She uttered a whispering whistle—a most pleasing sound that seemed charged with pleasant excitement. Then she waited until a young squirrel came zooming out of the night and landed near her. The two exchanged whistle greetings and ran up the tree trunk, soon passing from sight amid the screening branches. In rapid succession three more young squirrels glided down and across the open space to land on my tree and go scampering up the trunk to join the mother. A moment later, from a tree fifty feet away, the leader launched out on another long glide and the family followed her in single file through the silvery moonlight.

### They Are Nocturnal

Flying squirrels are relatively common animals, found in every part of Canada where evergreens grow. Yet they are seldom seen by people because of their strictly nocturnal habits. I suspect they may now outnumber their cousins the red squirrels in the west, because the latter animals are so avidly sought for their beautiful pelts by boys, trappers, and Indians. Probably there is a flying squirrel for every ten-acre patch of suitable conifer range.

In our part of the country they always seem to pick on poplar or balm trees for home-sites, mostly because woodpeckers rarely drill their nest-excavations in evergreens but concentrate on the softer, pitch-free cottonwoods. The animals are apparently capable of chiselling out their own

drays, but why should they bother when deserted woodpecker holes are so plentiful? Another thing, sundown squirrels are not as provident as the hard-working reds, though the gliders have no compunction about pilfering the stores of their more industrious cousins.

Flying squirrels find lots of cones for themselves and shuttle out the seed-nuts; they frequently go a-ground to scrounge for mushrooms; and once I chanced to disturb one of the animals gathering berries from a well-loaded saskatoon bush by moonlight. In addition to nuts and tree seeds, fungi, and fruits, probably they eat whatever birds' eggs they may find, plus a variety of insects found in tree crevices and crannies. They simply cannot resist exploring every tree-hole encountered during their travels, and doubtless find many a frozen insect in such hide-aways during the winter season.

Our family sees the animals frequently in our own backyard, because we have a few seed-bearing Manitoba maples growing next the house. During fall and winter months the flutter of winged seeds drifting down from the dark trees alerts us, then we stare upward until spotting the outline of a busy squirrel. Our front verandah roof has become a squirrel highway, too. Flying squirrels swoop onto it from the high spruce trees to the north, scamper across the thirty-foot span of the shingled avenue, then make another flying leap to reach the trunk of a balm tree some fifteen feet south of the house. From there, squirrels climb upward to gain altitude before swooping over to another large tree as they steer a course toward a spruce grove a few hundred yards away.

### Actually They're Gliders

Flying squirrels don't fly, of course. They have special leg bones and muscles which permit them to tighten the flaps of loose skin stretched between front and hind legs on each side of the body. Added to this broad planing or gliding surface, they came equipped with large, flattened tails to provide more kite-surface and also act as rudders. They are able to steer a route quite accurately from tree top to trunk, though sometimes a squirrel makes a blunder when a lump of snow slips off a branch just as the animal was launching and the bouncy spring-board upset its balance. This accounts for the occasional mishap revealed by squirrel tracks in the midst of a woodland clearing, the tracks apparently starting from nowhere but leading as swiftly as possible to the nearest tree.

My first flying squirrel dray was found when I was a boy of ten. A woodpecker hole in a balm stump was on an eye-level with my short self; when I went close to peer in, a flying squirrel gave me the scare of my young life by poking her lovely head out the hole and staring right back at me. From then on the dray was visited every day, and I never forgot the marvelous picture presented to me one June evening. Five young squirrels were perched in an alert and graceful row on a branch near the home stump, the little animals waiting impatiently for the mother to return. When she did, she scolded the watching small boy in a charmingly soft whistle, then led her family away to start their life-adventures among the darkening night woods.

### Mental Exercise

"The doctor told my wife she should take more exercise."

"And is she doing it?"

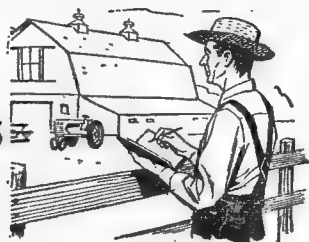
"If jumping at conclusions and running up bills can be called exercise she is."

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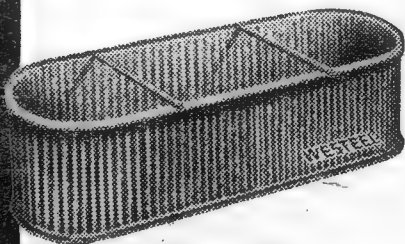
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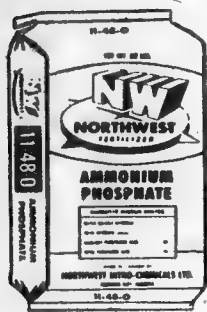




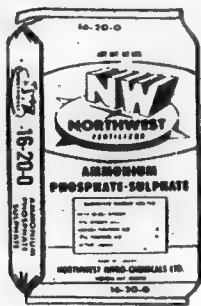
**Feed the soil that feeds your crop**

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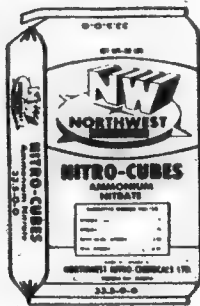
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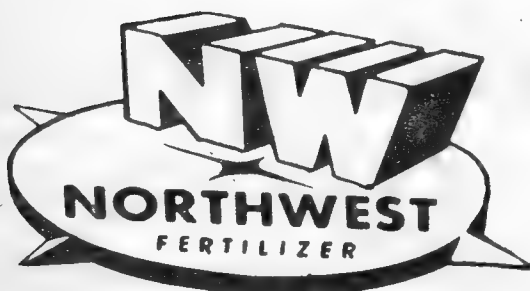
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### Above Average Rainfall

In sharp contrast to the drought period of the thirties, the past five years on the Western Prairies have been characterized by wet weather. George W. Robertson, a federal meteorologist working for the Department of Agriculture, recently made a study of rainfall at 20 representative stations in the main farming areas of the Prairie Provinces. His studies reveal that the average rainfall in the months of April to August was 25 per cent above normal. During May and June the same five-

year average for the 20 stations exceeded the normal by 23 per cent, while for July and August the average exceeded the normal by 24 per cent.

Mr. Robertson also made the observation that wet weather has implications other than higher yields. In a few areas where the land is flat, flooding is a problem which either delays spring seeding or results in the removal of land from production altogether. Wet weather is often cool weather, bringing the risk of late harvests and frost damage. Cool,

wet weather is also favourable to the spread and incubation of certain diseases, such as rusts and smuts. Also, there may be a lowering of wheat grade because of lower protein content.

Good land management anticipates these problems just as much as for drought problems. It involves protection, moisture conservation techniques, weed and insect control, and soil fertilization, and these measures differ in wet periods from those practised in dry.

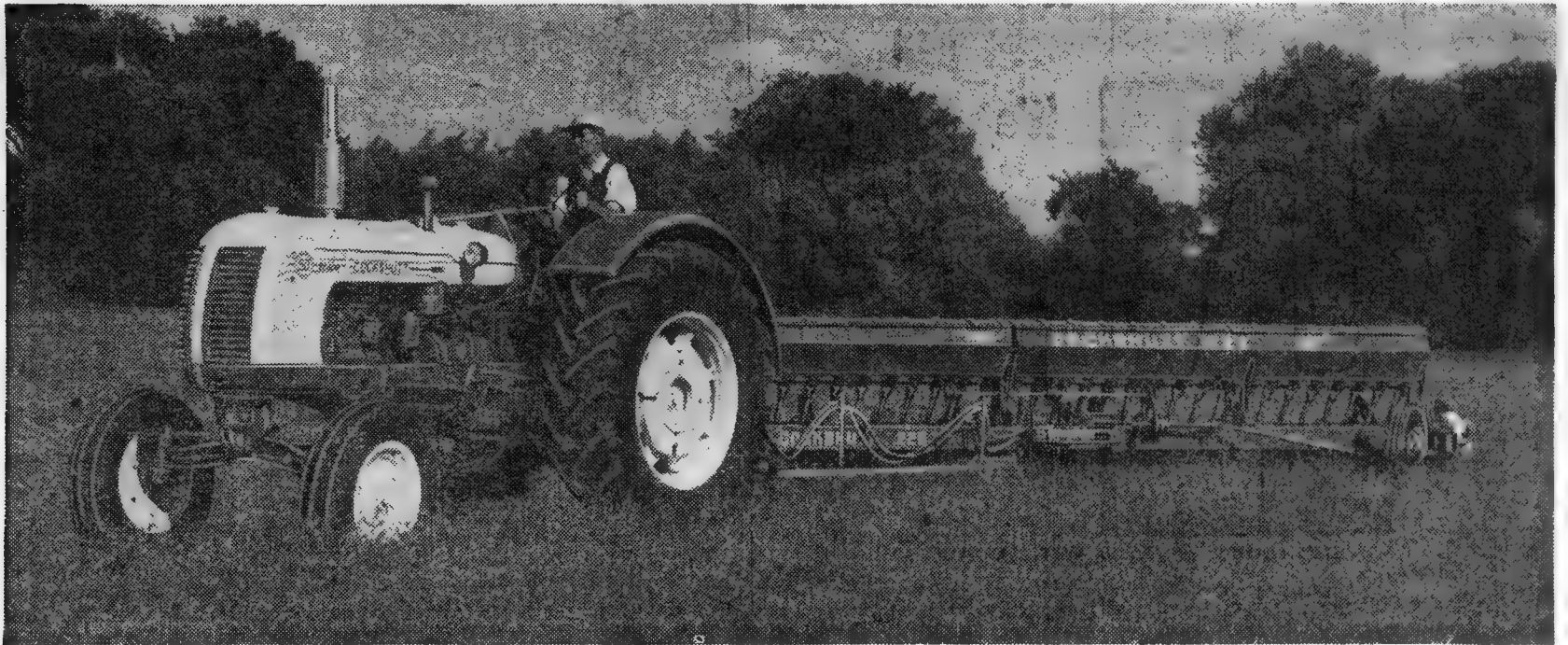
The Farmers' Union of Alberta announced that following an executive decision they are establishing a new department of information and extension. This department has been set up to service all district officials and locals of the organization with primary emphasis on the junior movement. To head up this new department the President A. W. Platt announced the appointment of Wm. A. Moisey, B.Sc. Mr. Moisey was born, raised and has farmed at Whitford, Alberta. He is a graduate of the Edmonton Normal School and the University of Alberta.

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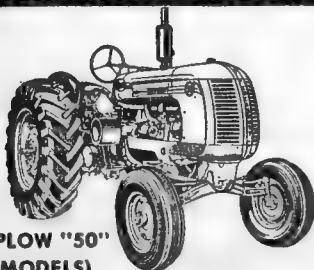
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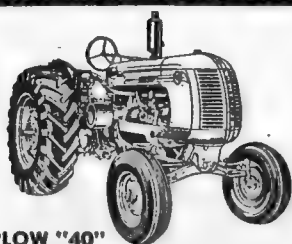
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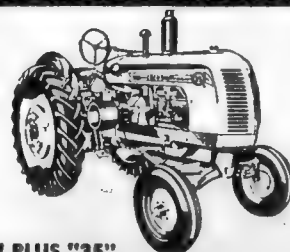
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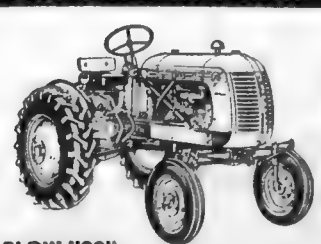
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**Salmon River Valley, Yesterday And Today**

By EDYTHE MARCH

**SALMON RIVER VALLEY** lay rich and virile as the seasons passed. Tall cotton-woods, maple and willow trees guarded the banks of the river which wound its way from its headwaters above Westwold to its outlet on the Shushwap Lake where Salmon Arm now stands. Fir and pine trees graced the mountain sides rising from the floor of the Valley.

Buttercups, anemones and yellow-bells grew abundantly. Wolves trotted through the Valley chasing and catching the deer for food. They often sat on their haunches on a winter's chilly night and howled mournfully up at the silver-sheathed moon. All manner of smaller animals roamed their valley haunts and life was good. Lady-slippers, Indian mocassins, violets, Lily-of-the-Valley and all manner of flowers grew abundantly in the valley. The salmon swam in the river and there were many of them.

The Indians gathered the berries growing in their season; the hazel nuts and plants for the making of dyes. They caught the fish and killed the deer, drying and smoking both for their winter meat. They travelled the

saw. Grubbed out the stumps slowly and painfully with grubbers. The women carefully tended the seeds brought from the Old Country and planted in the virile earth as the men cleared more land.

More settlers arrived every year and roads of a sort were built. They wound up and down the hills wherever it was easiest clearing, often taking the same course as the trails. Horses were bought from the Indians for 75c to \$1.00 apiece. Democrats were brought in and the pioneers gathered at each others homes for meetings and services. A bee was formed and they built Glenemma Hall and named it after Emma Sweet, who lived nearby.

Mr. Hughes was one of the first, if not the first, to conduct church service there. In later years Mr. Aekett conducted services for many years. One of his favorite hymns was "Work for the Night is Coming," and one of his favorite quotes: "Where two or three are gathered in My Name", saith the Lord, "there am I in the midst of them". There were often so few gathered there:

The bush-tail rats chased each other along the fat, round stove-pipes and beams distracting the congregation. The Hall was used as school, meeting-place, dance-hall and many box-socials and Christmas concerts were held there.

More schools were needed as more children arrived through the years and these were built. Whenever a new building, house or barn was needed the pioneers gathered together in a bee and erected the buildings. If anyone became ill neighbors were quick to arrive on the scene to help with the work or to bring a jar of soup or homemade jelly. If the illness was contagious the delicacies would be left at the door or, in later years, in the mail-box.

The homesteaders added more of everything each year. Chickens, a cow, pigs, etc. The hens sat on their eggs each spring and hatched out little yellow balls of fluff as the rooster heralded the awakening dawn with his raucous crowing. Heifer calves were kept to increase the herds. Farm produce was taken to the small, growing towns to be traded for sugar, flour, etc. The women made their own soap and cured their own bacon. They put eggs down in water-glass in earthenware crocks for winter use as the hens only laid during the summer and early spring. Apple, pear and cherry trees were started and each year a few more were budded.

**Signs of Progress**

More work was done on the roads as the new-fangled cars put in an appearance and caused many a run-away team. A bus route was started from Kamloops to Vernon, later being taken over by Greyhound Bus Lines. A new creamery was built in Vernon. The farmers bought shares and sent their cream there via the mail route to Armstrong. The C.N.R. constructed its railway line from Kamloops to Armstrong, from there using the C.P.R. tracks to Vernon, then building its own line to Kelowna. A radio station was built at Kelowna and everyone who could bought a radio to tune in CKOV. Gramophones took second place to radios as folks sat up late hours to listen. Box-socials and the yearly picnic became a thing of the past. No longer did everyone pile into a sleigh on a winter's night picking up more folk on the way to stage a surprise party on some distant neighbor. A freight line by truck travelled from Kamloops to Vernon.

Modern machinery replaced the old. Modern homes and barns were built. Cows stood to be mechanically milked with a milking machine. Machines baled the hay. Threshing machines



The author.

trails, with their baskets made from birch-bark, loaded with their bounty as they returned to their permanent camp at the head of Okanagan Lake. They lived in their teepees, made of cut poles tied at the top with deer thongs and covered with deer hides. The klotches carried the little papooses in birch-bark baskets of oblong shape, filled with moss at the bottom so no need for diapers. Thongs criss-crossed up the front holding the papoose in and all that showed was the little nut-brown face with its dark eyes. It could be carried on the klotches back or propped up against a tree when she was busy. The Indians tanned the deer-hides to make their buckskin clothes and mocassins. The skins of fur-bearing animals were also used.

**Early Settlers**

Then came the white man into the Valley in the late 1880's and early 1890's. Among the first were Jack da Lisle, the Bell brothers, Kellys, Mrs. Kelly being one of the first two white women to arrive there, Harry Blurton's mother being the other, and Jabez Kneller.

They trapped, cut wood and built shacks. These were made of log walls chinked with moss, gathered from trees and rocks. A hewn log floor or else a hard-packed dirt floor. The roof consisted of poles laid lengthwise, fir boughs placed thickly on top, the whole covered with dirt to keep the warmth in and topped with cedar shakes to keep the weather out.

They homesteaded parcels of land. Made small clearings with axe and

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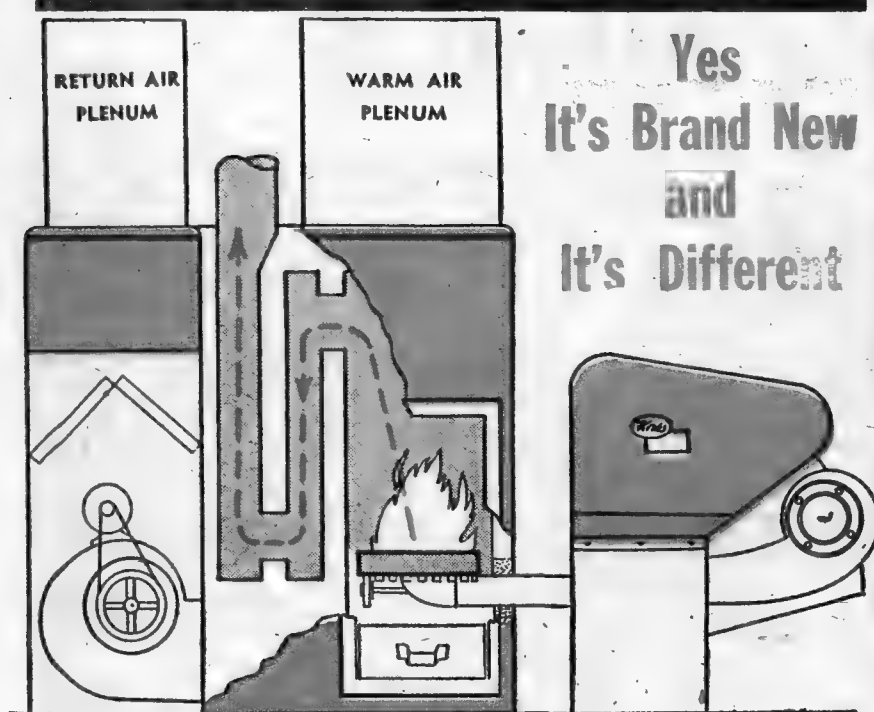
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Type of Fuel.	Cost Per Ton or Equivalent Delivered	Cost Per 10 Tons or Equivalent For One Year's Fuel Supply	Cost Per 10 Years at 10 Tons Per Yr. or Equivalent.
PROPANE @ .17 per gallon	\$30.94	\$309.40	\$3,094.00
OIL @ .17 per gallon	20.23	202.30	2,023.00
NATURAL GAS @ 1.00 per M.C.F. in small towns	20.00	200.00	2,000.00
NATURAL GAS @ .50 per M.C.F. in small cities	10.00	100.00	1,000.00
COAL	4.50	45.00	450.00

The above chart is based on actual B.T.U. comparisons figuring coal at 10,000 B.T.U. per lb. This can be raised or lowered depending on heat value of coal available, but the figure used is a reasonable average.

**FUEL SAVINGS.** It is plain to see with the above chart, will often more than offset the total installed price of a Kirk's Heating unit.

**KIRK'S GUARANTEE** their jobs to be dust tight and therefore there is no justification whatever for installing oil or gas. If you say that oil and propane are clean and convenient, then remember that the Kirk's new model 100 automatic furnace is **CLEAN and CONVENIENT too!**

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All other makes were originally designed for hand-firing and the installer simply leaves out the grates and tries to convert the old job by adding a stoker and blower. **STACK TEMPERATURE** is much lower with a Kirk's meaning that the Kirk's furnace gets more heat out of your fuel and leaves more money in your pocket.

**EVEN WHEN NATURAL GAS IS AVAILABLE** the cost of operation makes you think twice and often decide in favor of a Kirk's. If you own a larger building requiring more than 10 tons per year, your advantage is even greater.

**Kirk's HEATING LIMITED**

THREE HILLS, ALBERTA



threshed the grain. The women used mechanical washing machines and thought of the old nostalgic days when they bent with aching backs over a tub, using a scrubbing board. The horse was replaced by the tractor; the democrat by the swiftly moving modern car. The cows are on R.O.P. status. The hens lay eggs all the year except for those few short weeks when they still undress to don a new outfit. Very few have a maternal urge to sit on their eggs and hatch out little chicks. The rooster is still a necessity but very few farms are acquainted with him any more as most of the chicks are bought from hatcheries.

The farmers sort over the finest of their produce to show at the Interior Exhibition held at Armstrong for many years. Others win prizes at the Kamloops Fat Stock Show, and this year F. Pincosy has attained the prize for the world's best potatoes, shown at the Toronto Exhibition.

The Indians live in their modern homes, truck and tractor in the yard. They travel in their modern cars to the head of Okanagan Lake to select their Princess of the Year. Perhaps the older ones remember when they used to hold the Potlach there every year. They attend the annual Rodeo at Falkland and perhaps some will recount the legend of the Indian Princess who drowned in Pillar Lake; of her lover who turned into the pillar waiting for her there. Perhaps, too, they think of the Valley as it was in those years before the white man came.

## If I Had A Million Dollars

By EMILY SVEEN

WATCHING TV these past few weeks I have greatly enjoyed the half-hour show, "The Millionaire", wherein a kindly benefactor bestows a million dollars on an unsuspecting person, on the simple condition that they tell no one where they got it. His only benefit from this act is the pleasure he gets from watching how sudden wealth affects them and what they do with it. It has eventually led even simple me to speculate, and the dreams I have conjured up are happy ones indeed. They could easily become joyful reality with money, or public interest.

I am an arthritic. I am also young with a lot of driving ambitions that give me little rest, because there is no energy or strength to carry out the simplest plan. Only pain and suffering and the torture of the damned, locked up in a prison as sure as if I was a murderer, sentenced to prison for life, worse, because I can't even pace my little cell to work off mental agony. All I can do is think, and read and think some more, and here is what I think.

If I had a million dollars, I would not have time to be buying pretty baubles, fancy clothes, and the so-called finer things of life. I would be far too busy buying freedom for hundreds of other poor prisoners like myself.

Arthritis CAN be cured. Every day you meet someone who has been cured or knows someone who has. Not by the so-called wonder drugs! Too often they ruin any chances the patient might have had. I know from experience. Not by the mines of Montana, or the hot springs of Banff or Harrison Lake. True, many have been helped by these measures, the evidence is too great to be ignored. But what of the vast majority who have tried everything they hear of, and still grow gradually worse? Hopeless? Oh, NO!

With my million dollars I would first seek the advice of many experts.

I would set committees of experts busy. They would select and buy an acreage, big enough and beautiful enough to build a sanatorium on. Not a rest home for incurables, but a full-fledged hospital where canes and crutches and wheel chairs are constantly being discarded because they are no longer needed. This sanatorium would perhaps be built on a lake shore, or maybe on the rim of a beautiful valley, so that the patients could look out and see the glories of nature, and watch the busy lives of their fellowmen.

In my dream hospital there would be expert cooks with training and ability to provide the arthritic patient with just the proper diet to suit his case. There would be everything at hand to cook and work with. There would be attendants, interested and well trained to anticipate the need of every individual. There would be lectures, and study rooms so the patient could learn why and how he became ill, and how to help himself get and stay well.

Of course, there would also be doctors. They would all have to be very honestly interested in their work, the great work of freeing arthritics. All the machines and equipment necessary for treatments, examination and treatment rooms would be the best that money could buy. I have a million dollars, remember? Still it would never become just an institution, every single person, rich or poor, would be given the same careful, individual attention. They would immediately become a person on their own road to health. This transformation would not come overnight, of course, but it is a miracle nevertheless.

Did I say every patient would be cured? Sorry, there are always those whose chances have been ruined by time, age, or one or the other of the wonder drugs — not to mention operations or other serious ailments. However, every patient, regardless of conditions or finances, would receive a complete and thorough examination by the staff of doctors who would then consult with each other and honestly present their exact findings and their honest opinion of his chances for recovery.

Anyone with arthritis who has had the disappointing experience of going to a medical doctor for help will probably snort, and say, "yeah, where are you going to get doctors who will do anything for arthritis?" Believe me there are such people, I know! They are only hampered by lack of funds and facilities.

In the United States there are several clinics such as I have described here, only on a smaller scale. They hurry a patient through in a month or two which is not long enough to do real lasting good. The cost, too, is prohibitive, and out of reach of the average person.

True, we do have the Canadian Arthritis and Rheumatism Society. They receive a lot of publicity and considerable donations in their annual fund drives. Perhaps they do help some people. They did not help me. I didn't have the money to enter a hospital for prolonged tests and experiments so they practically patted me on the head and told me to go home and wait till my case became serious enough for a charity ward. They seem to rely mostly on Gold Salt and heat treatments and anyone with arthritis knows how little real good one heat treatment a week can do. Still they get so desperate they will try anything that might help even a little. I know, although I perhaps, have not the knowledge to judge the work of the Society. I do know what they did for me. I could write pages

about the disappointment and hope- after my visits to them. It seems to less frustration that engulfed me the whole plan is inadequate.



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# Agricultural Chemicals



## Soil Surveying

BY substituting the helicopter for the pack horse horse, soil survey teams in Alberta were able to cover some 10,900,000 acres in 1956. The Alberta Research Council and the Soil Survey Division of the Federal Department of Agriculture estimate the cost by helicopter to be 80 cents per square mile, compared with \$1.81 per square mile when relying on the pack horse alone. Last year's surveys were undertaken by only 12 full-time workers and 6 students.

There are three types of survey being conducted; the exploratory, the reconnaissance and the detailed. The exploratory survey merely indicates the arable possibilities and helps decide whether further inspection is warranted.

The reconnaissance survey is the normal type and identifies the land by soil type. The prime object here is

to get some inventory of the soil resources covering the entire province. Over the years, about 45,000 acres of Alberta have been studied in this way.

The detailed survey is a more intensive study and is particularly useful for experimental plots, illustration stations and market-garden areas. This type of survey is playing a large part in irrigation development on the prairies by indicating whether the potential of the irrigable land warrants development, and by indicating the soil type for the farmer.

## INFECTIOUS PLANT DISEASES

Farmers who have switched from wheat to barley in the past few seasons may be running up against a growing problem from diseases as the years go by.

According to Dr. L. E. Tyner, the head of the Science Service Laboratory of Plant Pathology in Edmonton,

there are two ready solutions. One is to rotate the crop on different soils and the other is occasional plowing. According to Dr. Tyner, a reservoir of leaf and root diseases to barley is perpetuated in the soil by successive plantings of the crop. He suggests rotating the crop to oats or legumes will cause the barley fungi to starve. The occasional plowing buries the disease-infested stubble from the surface and prevents winds and rain from spreading the spores to the young crop seedlings.

He gives one last word of caution, however. The fungus that causes rootrot in barley will cause the same disease in wheat, so the crop rotation to control the disease should not include wheat.

Canadian apple production in 1956 totalled 11,600,000 bushels, down about 7,500,000 bushels from 1955.

## WARNING ON SEED PURCHASES

Manitoba's Minister of Agriculture, Hon. C. L. Shuttleworth, has sounded a warning against growing unlicensed varieties of any crop. He said that several varieties of cereal grains and flax are being sold by salesmen from American seed houses, and that some Canadian farmers are even accepting contracts on seed which will be grown this year. He warned that these contracts are only options to buy but are in no way binding on the company, and that some of the seeds are not licensed in Canada because they are of poor quality.

Mr. Shuttleworth pointed out that yield and adaptability tests are carried out on all new and promising varieties by federal and provincial experimental stations, and if they are found to be a superior variety they are definitely licensed. All this is done to protect the farmer and guarantee that he has the best cereals and flax available.

## Use Of Fertilizer

THE use of fertilizers for increased grain production should not be the only consideration in using same, according to Dr. C. F. Bentley, associate professor of soils at the University of Alberta. Phosphate fertilizers speed up ripening, the average for Alberta being from 4 to 6 days.

Phosphate fertilizers also get the crop away to a good start and hence helps to keep down weeds, as the greater growth tends to smother the weed seedlings. The seeding of Olli barley at a later date, and fertilizing same, is an effective way of fighting wild oats.

Another advantage of fertilizing is the prevention of lodging. Prof. Bentley states that it is not uncommon to see fertilized cereal crops standing up straight and undamaged alongside badly lodged grain.

Where nitrogen is needed for grain crops it can also be important in improving the nutritive balance and its effect on the growing crops can readily be observed in the richer, healthier green of the growing crops.

A 40-bushel crop of wheat takes from the soil 47 lbs. of nitrogen, 21 lbs. of phosphate and 12 lbs. of potash.

Nitrogen, phosphate and potash are the three main nutrients required by growing plants.

Flax production in Canada in 1956 totalled 35 million bushels. The domestic demand will take around 5,000,000 bushels, leaving at least 25,000,000 to 28,000,000 bushels for export.



The Elvis Presley of the barnyard. Photo by Mrs. Jean Silverthorn, Outlook, Sask.

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AMMONIUM NITRATE-PHOSPHATE	27-14-0
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## Increased Returns From Fertilizers

**P**ROFITABLE increases in yield of cereal crops grown on stubble might be expected from rates as high as 80 lbs. of nitrogen and 10 lbs. of phosphorous per acre under climatic conditions similar to those which occurred in 1955 and 1956. This is indicated in tests conducted at a number of points in the black soil zone served by the Lacombe Experimental Farm, reports S. R. Church. Four rates of nitrogen, 0-20-40 and 80 lbs. per acre, were used in combination with four rates of phosphorous at 0-10-20 and 40 lbs. per acre.

The response to the various treatments in the two years was similar. In general the greatest yield response resulted from nitrogen which gave an average increase from all treatments of 11.8 bushels per acre as compared to 5.1 bushels per acre average increase from all treatments with phosphorous. Maximum returns per dollar spent for nitrogen occurred between the 40 and 80-lb. rate.

## MUSTARD SEED PRODUCTION

**G**ROWING commercial mustard in Southern Alberta began 25 years ago, and since that time has become an important dry land crop. The acreage has always varied from 30 to 60 thousand acres, but last season Alberta farmers seeded an all-time record 138,000 acres, mainly to meet an increased demand from Japan.

The farmers switched two-thirds of this acreage from yellow to the brown or Oriental variety to meet Japanese tastes and last season received 5 cents per pound for the yellow and 3 cents per pound for the brown and Oriental.

The experimental farm at Lethbridge has conducted variety tests last season with three mustard varieties on both dry and irrigated land. Production and marketing of mustard is a specialized business. With the number of buyers quite limited. For this reason all of Alberta's mustard is grown under contract with acreage based on the expected fall market. Any surplus resulting from abnormally high yields will be reflected in reduced acreage the following year.

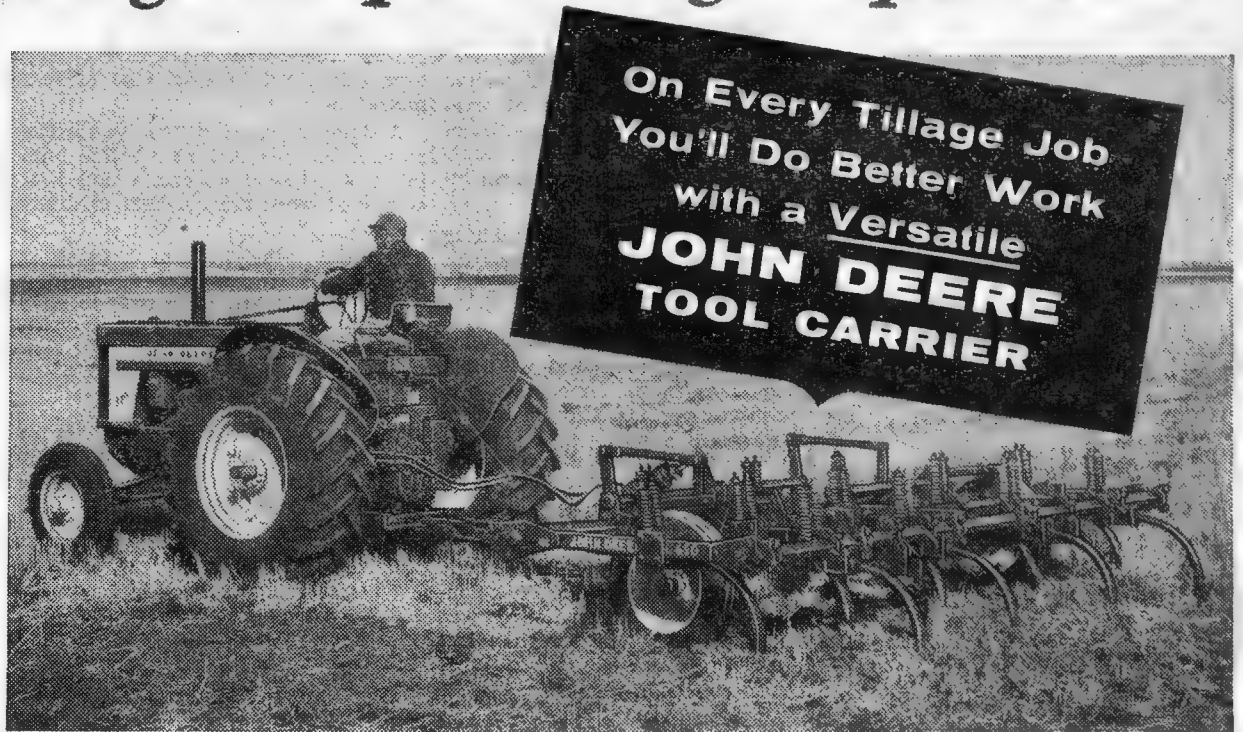
## Wheat Yields At Scott

**Y**IELD trials at the Dominion Experimental Farm at Scott, Saskatchewan, for the past five years, have given some comparison in yields of seven bread wheats and three durums.

In the trial period, Lake wheat maintained a consistent advantage in yield over the other varieties. Thatcher gave a slightly higher yield than Selkirk, even though the average yield of Selkirk was boosted in 1954, when rust depressed the yields of all other varieties. Lee wheat, a bearded, leaf rust resistant variety has consistently given a lower yield than the other varieties of bread wheats. Of the two saw-fly resistant wheats, Rescue has yielded better than Chinook, but Chinook possesses better milling and baking qualities and usually gives a better bushel weight.

The three durum wheats have tended to yield somewhat less than the recommended varieties of bread wheats. Stewart and Pelissier have given identical yields over the five-year period with Nugget yielding one bushel per acre less. Since Stewart is a better quality durum than Pelissier and equals it in yield, it would be the preferred variety. Nugget, however, matures earlier than the others and ripens about the same time as Thatcher.

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John Deere Tool Carriers can be equipped with flat spring standards, flat cushion-spring standards, or double-coil spring standards and a variety of working points. With this equipment you'll mulch stubble... work summer fallow... prepare and finish seedbeds...

do shallow subsoiling. Stiff standards are available for deeper work, permitting subsoiling.

Subsurface standards and wide, 30-inch sweeps handle shallow work at depths to 6 inches. Sweeps sever all root growth but leave trash tied into the soil to resist wind and water erosion... hold moisture.

Double-bar John Deere 650 Series Carriers are shown above mulching stubble and, below, tilling the subsurface. They're built in 8-, 10-, 12-, and 16-foot sizes. Economical single-bar 900 Series Carriers are made in 8- and 12-foot sizes. Huge 24- and 28-foot 620HC Series Carriers handle work on larger acreages.

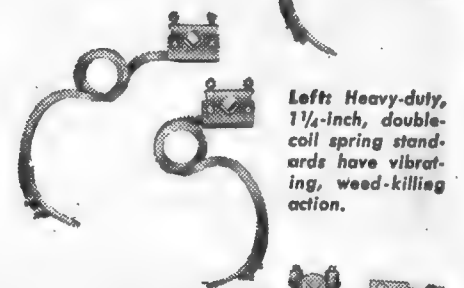
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## Working Equipment for John Deere Carriers

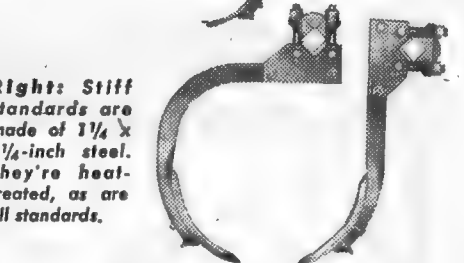
**Right:** Flat spring standards with the cushion relief feature are valuable in rocky conditions. Also available without cushion relief.



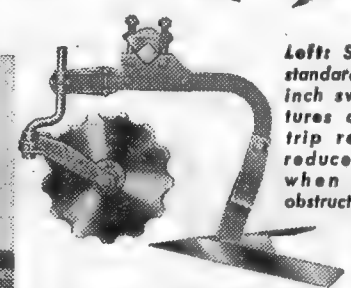
**Left:** Heavy-duty, 1 1/4-inch, double-coil spring standards have vibrating, weed-killing action.



**Right:** Stiff standards are made of 1 1/4 x 2 1/4-inch steel. They're heat-treated, as are all standards.



**Left:** Subsurface standard with 30-inch sweep features a friction trip release to reduce damage when striking obstruction.



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## LIVE STOCK

### Facts About The Meat Packing Industry

CASH income received by Canadian farmers from the sale of live-stock during the first nine months of 1956 was \$518,000,000 which accounted for one-third of the total farm income of \$1,875,000,000.

In 1955 the Canadian meat-packing industry employed 23,289 persons for an annual payroll of nearly \$80,000,000.

World meat exports in 1955 totalled 5 billion pounds, compared with 4½ billion pounds in the immediate pre- and post-war periods. Canada ranked ninth in world exports with close to 93,000,000 pounds of meat leaving the country.

Public consumption of beef from commercial channels for the first 11 months of 1956 totalled 830,000,000 lbs., a 7% gain over 1955. Pork consumption for the same period was 654,000,000 lbs., 6% higher than last year.

In 1955 the gross value of products sold by the packing industry was \$809,857,000. This was 5th among Canadian industries in annual turn-

over and third in total cost of raw materials used.

Although inspected Canadian cattle marketings reached an all-time high in 1956, exports of cattle and beef combined were the smallest in many years.

Dressed weight of livestock slaughtered in inspected packing plants and abattoirs in 1956 totalled slightly under 2 billion pounds. This was the highest peace-time meat production on record and second only to the year 1944.

Consumers spent close to 25% of their food dollars on meat in 1956. This amounted to about 6% of their total disposable income.

To supply meat requirements for the Canadian domestic market in 1956 an average of 36,000 cattle, 106,000 hogs, 17,000 calves and 16,000 sheep and lambs was required each week.

Only 1,800 Canadian cattle were exported to the United States in 1956 while more than 7,500 U.S. cattle were imported by Canada.

#### IODINE FOR ANIMALS

Livestock breeders are reminded that iodine is essential in the diet of farm animals, and when feed and water supplies are deficient in this element as is the case on most prairie farms, it is necessary to provide it in the ration. This particularly applies to breeding animals during the winter months. The ailments associated with iodine deficiencies are usually evident only among new-born and appear as hairless and weak pigs, goiter in lambs and calves, and joint ill in foals. Small quantities of the essential element are easily and cheaply provided. Breeding females are supplied with additional supplies in their feeds.

#### WOOL SUPPLIES DOWN

The world wool demand has eaten into supplies and boosted futures prices. Wool stocks in the United States are at their lowest level in several years, with estimated requirements for 1957 at 305 million pounds, and domestic production not expected to reach more than 135 millions. Only 50 million pounds are on hand. Wool prices in January started to rise in Australia, New Zealand, South Africa and South America. The present outlook for flock-owners around the world is optimistic. Sheep men might be able to promote their industry through the younger generation. The Canadian Co-operative Wool Growers suggest that youngsters be given a lamb or pair of lambs to raise. They say that with very little coaching, the young owners will soon know all the characteristics of their charges and develop a general interest in that type of stock.

The number of automobiles registered in Alberta in 1956 was 249,675, and commercial vehicles 126,859.

## NEWS NOTES

Now the U.S. is exporting Brahman cattle. Cattlemen in Southwest Africa have bought 33 head of Brahman cattle in the U.S. for the development of heat-resistant cattle in the desert areas of Africa.

Sweden is buying beef from Ireland. A Swedish order has been placed for 15,000 long tons of chilled carcass beef. This order is about twice the size of all Irish exports of chilled and frozen beef in the first eight months of 1956.

Transportation tie-ups and a reduction in slaughter may cause a decline in Australian meat exports in the next few months. The slaughter is being cut because cattlemen in Queensland are taking advantage of good pasture conditions to build up their herds, and most slaughterers and freezers are operating at reduced capacity.

The United Kingdom is taking 83 per cent of New Zealand's meat exports, and those exports have now reached an all-time high. New Zealand's meat exports have steadily climbed up from 756 million pounds in 1946 to 1,000 million pounds last year.

Australia has banned cattle imports from the United States because of "blue tongue" disease presently affecting some sheep in the U.S.

South Africa is suffering from a meat glut. At present, storage facilities are filled to capacity with some 43,500 beef carcasses held in cold storage at the end of September and supplies still increasing. On top of this the government has been buying about 5,000 hog carcasses per month to support hog prices, and some of these have even been sold to the United Kingdom to relieve the situation.

The Northern Rhodesia Government has set up a bank in which the currency will consist of cattle instead of cash. The bank's capital is 2,000 head of young cows and heifers, and this stock may be borrowed for a period up to five years. The interest for the loan will also be paid in kind at two per cent a year. Thus a loan of fifty head of cattle for five years will have to be repaid with fifty head of similar breed and quality plus another five head for interest.

The Australians are trying out a new system for shipping beef carcasses which they hope will revolutionize the Australian beef trade. The first experimental shipment of 30 tons of beef has arrived in England after a thirty-day voyage under ultra-violet lights. To prevent decay, the meat is flooded by the ultra-violet lights in the cold storage lockers, which is a considerable cheaper system than the present use of carbon dioxide which requires special airtight lockers. Australia hopes the new system may give them an edge over their competitors from New Zealand and Argentina.

The Euphrates valley irrigation works were destroyed by Hulagu Khan, the Tartar. That valley once supported 30,000,000 people. Its present population is around 4,000,000.

#### Transfer of Weight

Mother on phone to storekeeper: "I sent my little boy for five pounds of bananas and there are less than three pounds."

"There is nothing wrong with my scales," said the storekeeper, "have you weighed your little boy?"

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R. R. Furlong, vice-president of Burns & Co. Ltd., Calgary, has been elected a vice-president of the Meat Packers' Council of Canada.

## FARM NOTES

In the United States last year, more cattle were shipped by plane than by boat.

The Dutch treasury hopes to save \$18.3 million by getting rid of its consumer subsidies on sugar and milk. The action is expected to take place within the next few months.

The United Kingdom has made a tentative agreement to purchase as much as 35,000,000 bushels of Australian wheat a year for the next five years.

African farmers grew some 210 million bushels of wheat last year which is 17 million bushels more than the previous year. There is some

talk that South Africa may soon begin exporting wheat.

Turkey has managed to double its wheat production since pre-war years. The average production of wheat throughout all of Asia has jumped 18 per cent over pre-war, and is estimated at 1,860,000,000 bushels.

The Uruguay Government found that by cutting its support price for wheat the country's production of wheat took a sharp drop. In fact, a drop of 17 per cent. Uruguay has raised its price supports again to the equivalent of \$2.51 a bushel.

World rice acreage and production is at a record high. Acreage is about 35 million more than the average for the post-war years and production is 22 per cent above the post-war aver-

age. The main increases in production are in Asia where 93 per cent of the world rice crop is harvested.

The Government of Chile hopes to boost home wheat production and reduce wheat imports by domestic price supports. In the new season, the supported price of wheat in Chile will be \$2.07 per bushel. The current price on imported wheat at Chilean ports is the equivalent of \$2.20 a bushel.

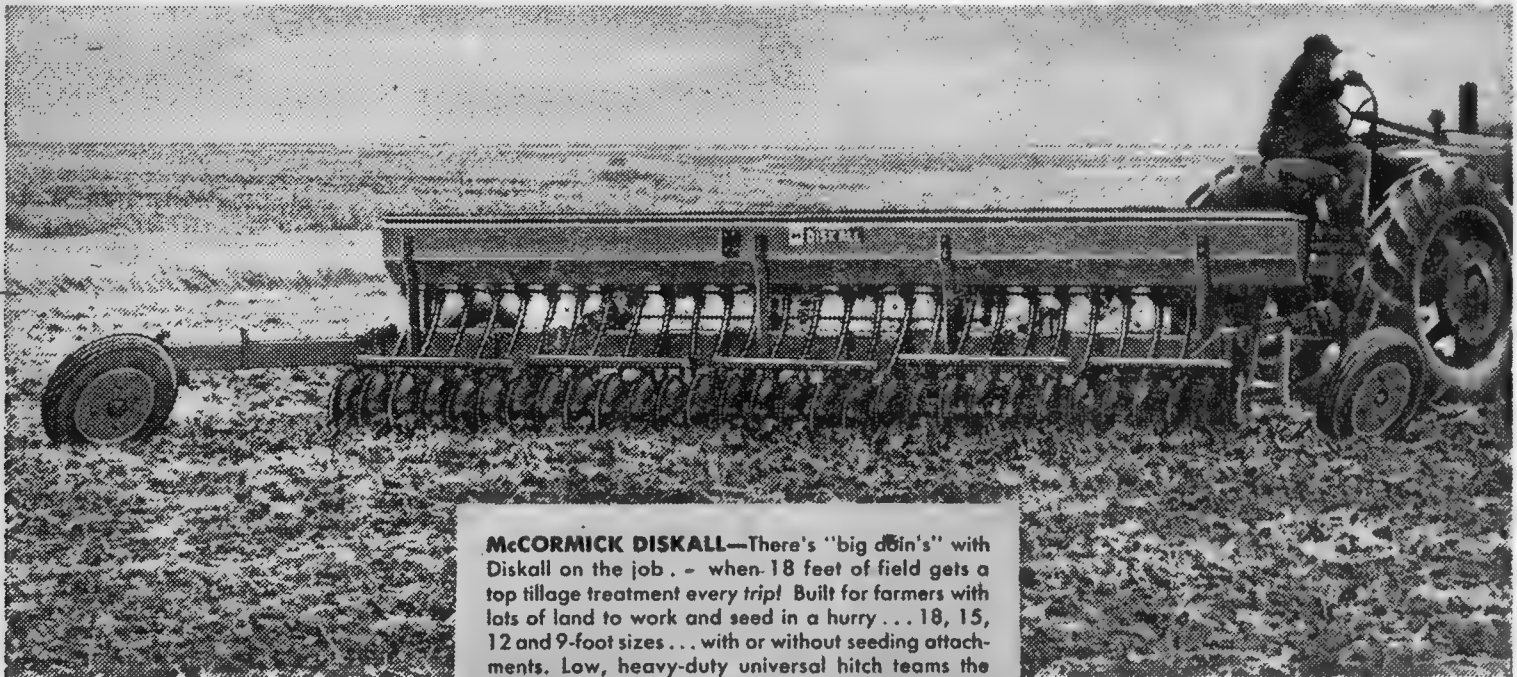
**HOW scientific can farming get?** George Crocker claims that pigs are among the world's most neurotic creatures. "If their quarters are cramped or they suddenly see a stranger, or somebody says hard words to them, it upsets them terribly," Mr. Crocker said. "I hypnotize pigs regularly to keep them fit and happy."

The American farmer is getting older. According to the U.S. census the average U.S. farmer today is fifty years old. In 1954, the average age was 49.6; in 1950 it was 48.3; and in 1940 it was just 48.

The 1956-57 cotton crop in Greece is slightly more than last year, reaching a total of 285,000 bales.

Canada is increasing its rice imports. In the first half of 1956 the Canadian rice imports totalled nearly 51,000,000 pounds, a 17 per cent boost over the previous half year.

A near record high production of olive oil is expected in the 1956-57 season in the Mediterranean basin. The output is expected to total nearly 1.1 million tons, an increase of 325,000 tons over last year.



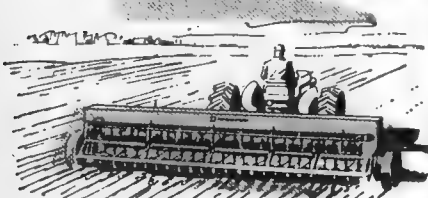
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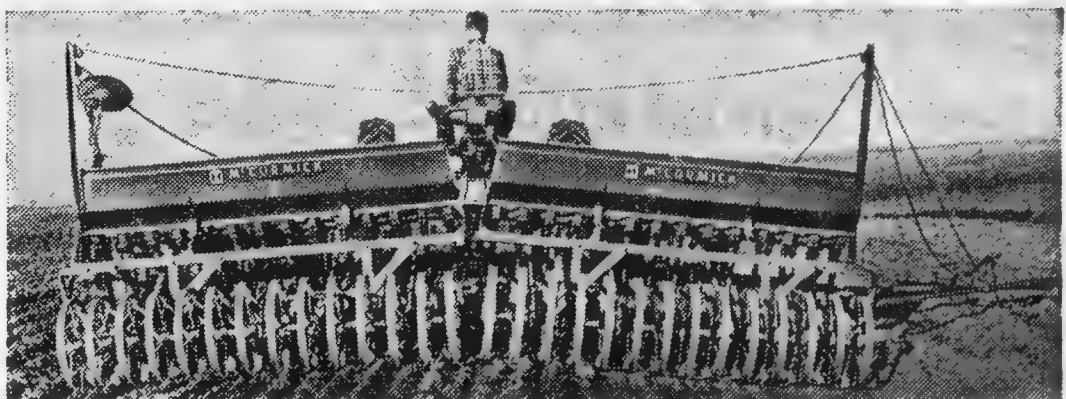
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Rubber-tired wheels speed travel and improve flotation on this 14-foot McCormick low-wheel Model M. Available with either 6 or 7-inch spacing—in 14, 20 and 24-furrow-opener sizes—with spring, hoe, shoe, single disk, deep seeding or double-disk openers.



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# INTERNATIONAL



# HARVESTER



By LEONARD D. NESBITT

## Irrigation Development On The Prairies

WHILE rainfall has been abundant and timely in recent years over most of the cropland in the prairie provinces, the long-time weather experience is that drouths occur in cycles at irregular intervals. This has been established by weather records extending back for 60 years or more, and also by the low organic matter in from 15,000,000 to 20,000,000 acres of bald-headed prairie centering what is known as the Palliser Triangle. This triangle was delineated by Capt. Palisser, who headed a British expedition which surveyed much of Western Canada before the influx of settlement. The base of the triangle is the United States' boundary midway in Southern Alberta, extending eastward to about midway on the same boundary in Saskatchewan, with the apex at Maclin, west of Saskatoon. Most of the region, besides being low of rainfall, is high in evaporation but has the longest growing period in the prairies. Herein is located the irrigation districts of the west and the hope for the expansion thereof.

### Water Comes from the Rockies

The most extensive development of irrigation in this area up to the

present has been in Southern Alberta. The reason therefore is that the province's western boundary lies in the eastern slope of the Rocky Mountains and eight rivers rise from glacial sources there and thread their way across the southern plains uniting near Alberta's eastern boundary to form the South Saskatchewan. Pioneer ranchers and farmers diverted water from the rivers and smaller streams to irrigate pasture, grain fields and gardens. The beneficial effects of such early efforts in irrigation and the occurrence of periodic drouths suggested the desirability of more extensive use of available water for irrigated farming.

By providing dams and storage reservoirs the South Saskatchewan river and tributaries has sufficient water to irrigate a maximum of about 2,800,000 acres in Alberta and Saskatchewan. Additional water could be diverted from northern rivers running into the Arctic ocean, but that looks to be a plan for the future.

The first substantial irrigation project in Alberta was started in the Lethbridge district by the Alberta

Railway & Irrigation Co. in 1883. Since then some 15 projects have been completed at a cost of \$45,000,000 providing water for 789,000 acres. Projects under construction will add 951,000 acres and under consideration as feasible a further 183,000 acres. The grand total is 1,924,000 acres for Alberta.

### Saskatchewan Prospects

The province of Saskatchewan has hope of materially expanding its irrigable area. At the present time only 45,644 acres are under irrigation there but plans have been developed for the construction of a huge project calculated to water 455,000 acres through the construction of a dam 205 feet in height across the South Saskatchewan river near Outlook. The cost of construction was placed at \$250 million by a royal commission which studied the proposal. Of that total something like \$216,200,000 would be chargeable to irrigation and the balance to power development and supplying water to towns and cities. Subsequently, a more moderate estimate placed the cost at \$135,000,000.

In Alberta up to 1920 the construction of works for the development of extensive irrigable areas was undertaken by private companies having large land holdings, mainly the Canadian Pacific Railway, the Southern Alberta Line Co., and the Alberta Railway and Irrigation Co. Between 1920 and 1939 a number of irrigation districts were formed to irrigate lands under private ownership which previously had been operated as dry farms. These districts were financed by the sale of bonds guaranteed in most cases by the province of Alberta. The Lethbridge Northern project was the largest of such districts. Though the irrigated areas produced abundantly their operations were not a financial success to the builders of the project. Settlers were called upon to pay water rates running from 50 cents to \$5 an acre annually, the amortized cost of construction and the land cost. The financial burden was too heavy.

### Benefits of Irrigation

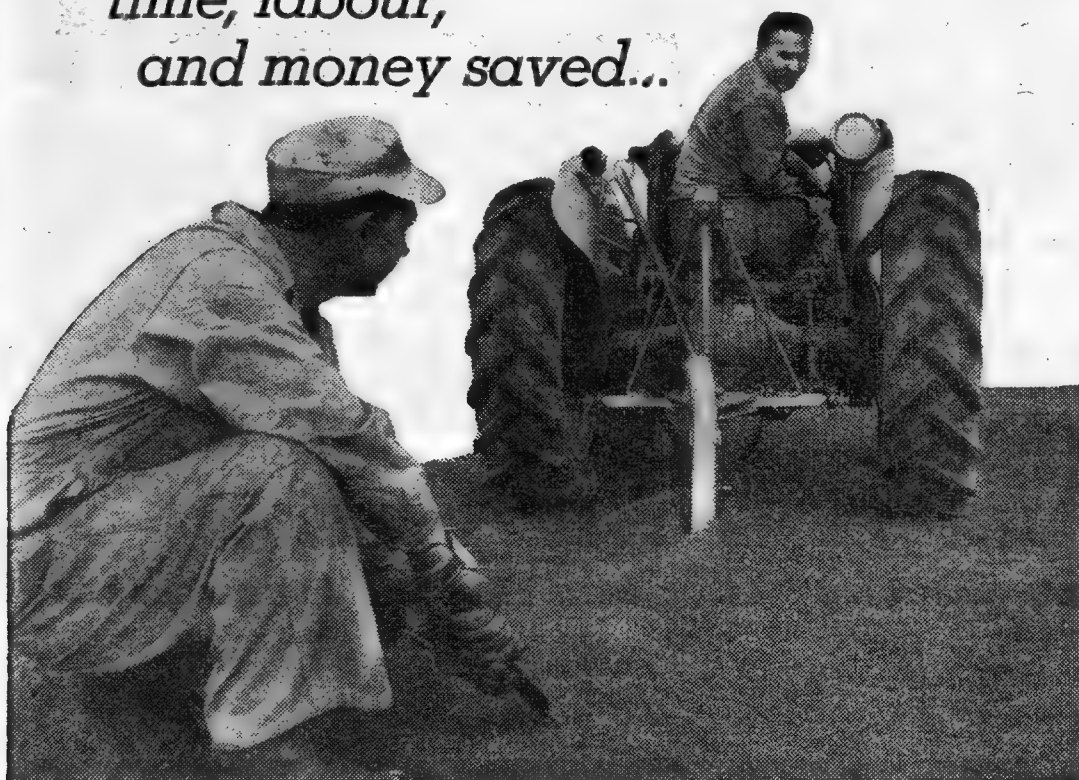
Notwithstanding such experiences the operations of irrigation districts in Southern Alberta proved to have benefits far beyond the immediate interest of the farmer owner. In drouth cycles such as those which occurred from 1917 to 1921 inclusive and from 1933 to 1938, the lush production of irrigated areas provided fodder, green vegetables and even fruit sufficient to meet the requirements of not only the immediate neighboring areas, but other parts of the province. Prior to the development of irrigation when drouth cycles came along hay and feed had to be imported from as far distant as the province of Quebec, at tremendous expense, and vegetables and fruits brought in from Eastern Canada and British Columbia.

Irrigation was an exclusive responsibility of provincial governments up until the time a study was made of the subject by the St. Mary-Milk Rivers Water Development Committee under the chairmanship of Victor Meek, controller, Dominion Water and Power Bureau, Ottawa. On the basis of the report of that committee a new irrigation policy was adopted which provided for joint construction of feasible irrigation projects between the federal government and the provincial government concerned. The federal government undertakes the construction of the main dam and reservoirs and the provincial government the distributive system. This plan relieves water-users on the large projects from heavy capital costs and gives them a good chance for successful operation of their farms. The St. Mary river project costing \$40,000,000 and providing water for 345,000 acres and the Bow River development costing \$20,000,000 providing water for 240,000 acres, are being built on such a basis. Both are in Southern Alberta.

### Increased Productivity

The average farm in an irrigated area is around 230 acres in size on which about 120 acres is irrigable. The operation of such a farm requires incessant labor the year round. To get the best results a farmer must be engaged in livestock feeding, dairying, and poultry raising along with the production of grain and fodder crops. Under irrigation a farmer can produce 50 bushels of wheat to the acre compared with an Alberta average of 18 bushels, 100 bushels of oats compared with 48 bushels and 70 bushels of barley compared with 37. In addition, alfalfa and other fodder crops produce heavily under irrigation and specialty crops such as sugar beets, potatoes, peas, beans, tomatoes, soy beans, strawberries, raspberries, plums, grapes and apples can be produced successfully. Livestock feeding is also an important branch of agriculture in irrigation districts.

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and money saved...*



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# Farming And Fuming

By F. DEKKER

ACCORDING to husbands and cartoonists, wives are a rather witless lot, noted for their brilliance in cutting linoleum with hubby's razor or using his best screwdriver to stir the paint. But we wives have troubles too. Especially farm wives. Particularly me!

Let me give you a few examples of what makes life on the farm so idyllic, restful and carefree — or so I've heard. Now normally you would suppose that a combine and an ironing board could have little in common, but rule No. 1 on the farm is: do not be surprised at anything. So it was only with my usual foreboding that I watched my husband hurry in one afternoon with a combine canvas under his arm and his "I'm-never-going-to-get-this-harvesting-done" look on his face. The canvas had a large hole. To fix it, he had a canvas patch and special glue with instructions to let the patch dry for a few seconds, and then to iron it with a hot flat iron for one minute. And where does one iron except, naturally, on the ironing board? During harvest time, as any good farm wife knows, suggestions are most unwelcome (Rule No. 2) and she should remain unobtrusively in the background. So on the ironing-board went the canvas, the glue, the patch and the iron. But when the minute was up, it was quite apparent that the canvas had become a permanent part of my ironing board. We compromised, however, and a piece of the ironing-board cover is now permanently attached to the combine canvas, cheerfully riding up and down the wheat field every fall, which is more than I can say for my husband.

Our wash tub, too, somehow manages to wend its way out to the yard, especially on chilly nights when the tractor or truck needs to be drained. For a while my cold-pack canner also donated its services towards this cause until one morning my husband forgot about the poor thing waiting there sedately underneath the truck, and we now have the largest blue meat platter on the market.

## That Thoughtless Man!

One does not, of course, anticipate the return of such trivial items as nail files borrowed to file points on the tractor magneto. I have long suspected that the only reason husbands do not bother to bring their tractors into the house to repair is that through some grave oversight the kitchen doors were built too narrow, though this error will probably be corrected in future blueprints.

Speaking of kitchens, for years ours has had to double as a workshop. The chairs become impromptu sawhorses and our table is a scarred veteran of skirmishes when the saw cut just a trifle deep or a nail got hammered through the board "just a bit too far, dear." Now it's not that I mind a little carpentering now and then, and one must expect to make a few sacrifices for the sake of a new coffee table, but it's something else again to find sawdust mixed with the dinner peas and carrots (though recommended from an economic standpoint) and it does get a bit disconcerting to have to wade knee-deep through shavings to the kitchen table, trying vainly to find room to set the dishes between the bench-vise and the mitre box, avoiding meanwhile the jagged teeth of saws that lean insolently against the cupboard. Unless I stay wide awake, I find myself buttering my bread with a chisel or stirring my tea with a nail-set. Life is hectic around our house when a do-it-yourself is being done, and you

have to step smartly not to get done in.

I remember, too, the frosty morning our arthritic old truck refused to rouse itself. To keep the radiator warm my husband took out the first thing available in the back porch — my second-best coat. More coaxing, checking of innards under the hood, physiotherapy by means of the crank, and the old truck gasped and coughed and finally but reluctantly came to life. But what is this being carried in — a coat with a shredded wheat collar! "It kind of got caught in the fan-belt, and besides, you should hang your coat in the closet where it belongs! (Apparently, Rule No. 3.)

## The Vinegar Episode.

Oh, yes, the vinegar episode — though it is only one of the more

common run-of-the-farm variety. One day I noticed the vinegar bottle on a shelf in the back porch. This was a decidedly odd place for the vinegar to be, but decidedly odd things were by then quite routine so I popped it back in the kitchen cupboard. Perhaps a week or two later we had company for supper (or is it dinner?). Now I am hopelessly helpless in the role of social butterfly but on this occasion I was at least trying to flutter my wings. For a time all seemed well (this alone should have warned me) — the chicken and the oven had co-operated for a change, the potatoes were mashed as light as the fluff from our cottonwood trees, and the salad . . . oh, no! I tasted it once more to make sure. The dressing had been made with coal oil!

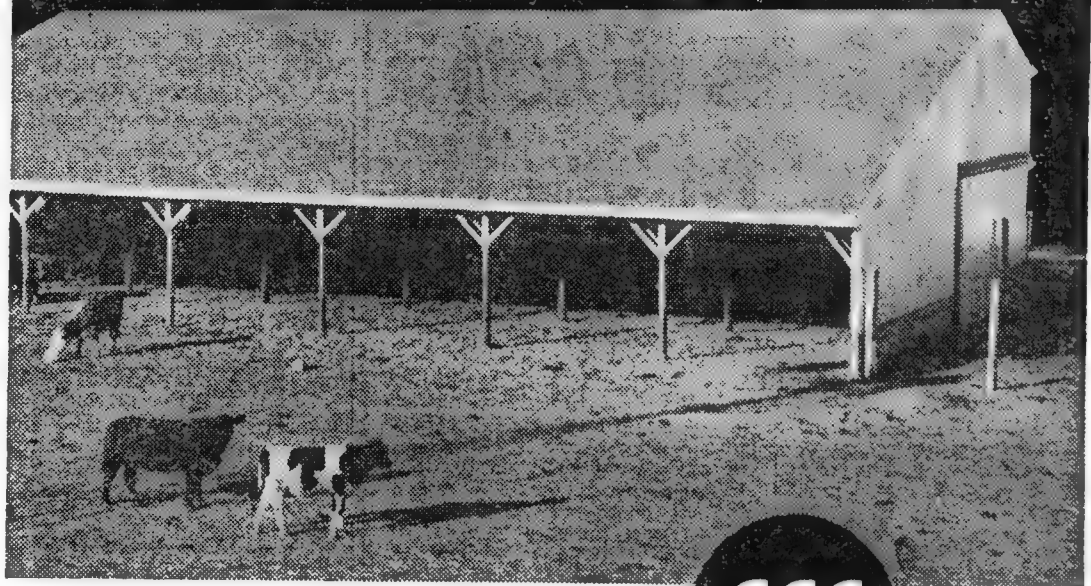
We don't entertain much lately.

And then, take canning time. I've heard it said that when a housewife decides to preserve some peaches for

instance, it is customary for her to bring up a dozen or two fruit jars from the basement for washing. Not at our house, it isn't. Instead it becomes time for my annual reconnaissance of the yard, paying special attention to dark and dusty shop corners and oily garage shelves. Lucky little me, I find all the preserving thoughtfully done ahead of schedule. Not only that, but the jars are all neatly labelled too: "Antifreeze — straight", "Antifreeze — mixed", or "No. 10 oil", and then for variety: "½" brads", "shingle nails", or "2" finishing nails". Unfortunately the casualty rate is rather high and as I sadly gather up the metal rings I dream of a far off Utopia where there are jars to go with every top. And saneness for every farm wife!

He that wrestles with us sharpens our skill and strengthens our nerves. Our antagonist is our helper.—Burke.

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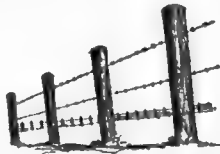
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## The Lingo Of The Farms And Ranches

By MIRIAM GREEN ELLIS

**W**ITHOUT help from George Bernard Shaw, who disapproved so thoroughly of the English language as is, but made a lot of money out of it just the same, the men who till the soil and breed the flocks, have evolved quite a language of their own. Most of the words are not found in any dictionary. One just has to learn them by ear. This is particularly true of the live stock men.

But when Canada imported its breeding stock from the Old Country, the farmers gladly moved over to give space to the grooms and herdsmen and shepherds who came with the animals. They stayed and so did many of the idioms they brought with them. These are liable to have a strong dash of Gaelic or Sassenach in their make-up.

Even the stockmen are confused over the meaning of some of these, but for townfolk who just go to the races, they are pure Greek.

One of the badly misused words is "Thoroughbred". It is carelessly used in connection with every breed of animal, hens, dogs and humans. "Thoroughbred" is the name of a particular breed of running horses, the kind you see at the race tracks. It is a breed name same as Clydesdale or Hackney.

Animals of pure breeding are "purebreds", not "thoroughbreds". "Purebreds" are animals of a recognized breed and which are eligible for registration in the herd book of that breed. All purebred animals are not worthy of registration or, for some other reason, are not registered. While the best purebreds are usually reserved for breeding purposes, the market price for top quality geldings at the moment may induce the owner to castrate his stallions. The same is true of other livestock.

A "Crossbred" is the result of crossing two purebred parents of different breeds but of the same species. Such progeny is no longer

known as purebred; this cross carries what is known as hybrid vigour.

A "Grade" progeny of a purebred mated to one not purebred, or possibly neither parent is purebred, but the purpose is to "up-grade" or improve the quality of the offspring.

"Scrub": an animal of mixed or unknown breeding without definite type or marking; usually such an animal is unprofitable and unpleasing to the eye.

"Linebred": To accentuate certain characteristics, two animals of close relationship are mated. Sometimes this practice results in accentuating bad qualities, instead of the good. It is tricky and should be left to the specialists.

"Inbred": Line breeding carried to extreme as, for instance, brother to sister or dam to son or maybe haphazard breeding; usually ends in disaster, disease, loss of stamina, etc.

"Sport or mutant": A sudden divergence from ancestral type. New strains of plants or animals are often developed by mating back such sports as for instance the new colors of mink or new strains of plants, or a polled strain from a breed with horns.

"Family" of plants or animals means much the same as in humans.

"Hermaphrodite": An animal or plant having both male and female organs.

"Stag": A bull or boar that has been used as a sire and then castrated.

"Scale or substance": Growthiness and bloom that should be evident at his age.

"Syndicate horse or bull": A sire that is bought and handled by a group for their own benefit.

"Club" sire: Bought and handled by a neighborhood club of breeders or the animal may be bought by the government and loaned to the local organization for the purpose of improving the quality of animals in that district. The Club undertakes to provide a satisfactory home for the sire, and to arrange such details as pasture for the females that will be bred to him.

### Horse Vocabulary

"Cayuse or Broncho": Ranch terms: the cayuse is usually associated with the Indian horse; the broncho is a wild, unbroken horse.

"Locoed": Crazy, often caused by eating poisoned weed.

"Sound": With no physical defects, in eye, wind or limb.

"Blemished": Having physical defects which are not inherited.

"Unsoundness": Inherited physical defect.

"Yeld": Dry mare.

"Spats": Hair that grows around the hoofhead.

"Parrot mouth": Where the top jaw overlaps the bottom, or if the lower jaw overlaps, it is called "hog mouth".

"Sickle hocked": When the line from the hock to the hoof is not straight, as viewed from the side.

"Hackney": Breed of high-stepping driving horses.

"Standard bred": Breed of driving horses.

"Remount": Supply of extra police or military horses.

"Walking horse": Breed of horses that has a quick gait at the walk, sometimes up to nine miles an hour. Bred in Tennessee and plantation country.

"Heavy Draught": Horses for heavy hauling such as Clydesdales, Percherons, Belgians and which, to a large extent, have been replaced by tractors both on farms and city streets.

"General purpose": Handy-weight horses which can perform when hitched or under saddle.

"Delivery horse": Light smartly gaited horse suitable for street delivery; may have a cross of Thoroughbred, Standard Bred or Hackney.

### Rangeland Lingo

"Doddie": Aberdeen-Angus cattle, Scottish name for Polled.

"Maverick": Unbranded calf which in days of open range was fair game for the first man who found it.

"Polled cattle": Naturally without horns.

"Butcher and killer": Steers: the tops have a good degree of finish and breeding.

"Feeders": Suitable for further finishing in feed lots; market steers grade down to stockers and canners, the latter old cows and poor quality suitable only for canning.

"Free Martin": A heifer twin with a male calf. A free Martin will not usually breed.

"R.O.P., Record of Performance": Term used where exact records are kept of production and breeding performance.

"Re-actor": An animal that re-acts to blood tests for tuberculosis and brucellosis.

"Dwarf": Results of mating animals carrying genes for dwarfism so that offspring will never grow to normal size of breed.

### Pigs

"Weanling": Young pig just weaned or for some reason cannot get its mother's milk.

"Runt": Unthrifty, undersized pig; there is often one to a big litter.

"Shoat": A young market hog.

"Gilt": Young female pig.

"Shop hogs": Handy weight, fairly finished for market; usually go into roasts or chops rather than for bacon.

"Feeder hogs": Young hogs ready to be finished for market.

"Ridgeling": Physical defect of boar often inherited. One testicle lies up in the kidney and cannot be castrated.

"Rhinitis": Infection of the nasal passage.

Since live grading of hogs is not practiced, the terms "Select" and "Thick Smooth" have gone into disuse. Instead is the Grade A carcass, graded on the rail.

"Wiltshire Side": trade name for bacon-type hogs shipped to U.K., and now seldom used since exports of bacon to Britain have ceased. To make a Wiltshire, the carcass was split down the back, head and feet removed, also backbone, shoulder blade and breast bone. The side was wrapped for shipment.

### Sheep Terminology

"Buck" or "Tupp": Alternate name for ram.

"Broken Mouth": An old ewe which will not graze to good advantage on account of loss of teeth.

"Fell": Membrane between the pelt and flesh of carcass.

### In the Poultry Yard

"Pullet": Young hen, usually so named till after the first adult molt.

"Eviscerated": Modern marketing term; entrails drawn, carcass ready for oven.

"Line Breeding of Poultry": scientific mating of closely related birds to obtain greater production of eggs, larger or smaller size of fowl such as Broad-breasted Bronze or Beltsville White. Such a fixed strain is practically a new breed. When it comes to show stock, color of feather, beauty and carriage of tail, saddle feathers, knock knees, faulty spine and a dozen other faults bring demerits.

## Canadian Sales up 40% in Record Year for Sun Life

New insurance during 1956 largest amount ever sold by a Canadian company in any year; policy dividends again increased; \$7 billion insurance in force.

New life insurance sold by the Sun Life Assurance Company of Canada in 1956 amounted to \$854 million, an increase of \$93 million over the previous year and once again the greatest amount of life insurance ever sold by any Canadian company in one year. In Canada, a 40% increase was reported. Sun Life's 86th Annual Report to Policyholders, just released, also discloses that life insurance in force has now passed the \$7 billion mark, an all-time record. The Company is again adopting new and increased dividend scales which will further reduce the cost of insurance to policyholders. As a result of these increased scales, Sun Life will pay out \$31 million in dividends to policyholders during 1957, or \$2,700,000 more than in the previous year, and more than twice the amount paid out only nine years ago. During 1956, the Company paid a total of \$137 million in benefits to policyholders, largest amount ever distributed by the Sun Life in any year. Living policyholders and annuitants received \$94 million of this amount. Benefit payments since 1871, when the first Sun Life policy was issued, have now exceeded \$3,140 million.

George W. Bourke, Sun Life President, in reviewing Company results for the 12-month period, stated that full advantage had been taken of favourable conditions for a record sale of life insurance by the Sun Life. By mobilizing the savings of millions of policyholders, life insurance is playing a vital part in providing the funds needed for the tremendous capital expansion that is taking place today.

### GROUP BUSINESS

#### NOW OVER \$2½ BILLION

Included in new business during the year was \$259 million of group insurance, or 30% of the total, bringing group insurance in force to more than \$2½ billion. Sun Life's worldwide total of insurance

in force now has reached \$7,030,000,000, an all-time high. Annuities payable currently and in future under group pension plans and individual contracts totalled \$162 million per annum at the end of 1956. Life insurance and annuities combined, are the equivalent of \$9,175,000,000 of life insurance. The division of this figure among the major territories in which the Company operates is: Canada, 49%; United States, 36%; Great Britain and other Commonwealth countries, 13%; elsewhere, 2%.

### \$89 MILLION IN

#### NEW MORTGAGE LOANS

An increase in assets of \$60 million took place in 1956, and Sun Life assets now stand at slightly over \$2 billion. "During the year 1956, even though tighter credit conditions existed in Canada and the United States, the Sun Life advanced \$89 million in new mortgage loans throughout the two countries," Mr. Bourke said. "Our mortgage loan account now stands at \$460 million."

Sun Life's Report revealed that the success of the year's investment operations was reflected in the gross interest rate earned on the Company's assets, which increased from 4.17% in 1955 to 4.32% in 1956.

### CONTINUED GROWTH

Mr. Bourke continued by saying that with the prospect of continued expansion, the volume of new life insurance will continue to grow. "In the highly competitive atmosphere in which we operate," he declared, "the Sun Life will continue to be responsive to public needs and anxious at all times to improve the service we have to offer."

A copy of Sun Life's complete 1956 Annual Report, including the President's review of the year, is being sent to each policyholder. There are 100 Sun Life Branch Offices to serve you throughout North America.

## FARM NOTES

Automation and intensive scientific farming has completely changed the role of the Canadian farmer in the past fifty years. In 1904 a farm worker was able to supply food and fibre for himself and six others. Today, with the population practically trebled a farmer's production meets the needs of himself and 18 others. While increased production efficiency has boosted yields, it has also added substantially to the problems and responsibilities of farmers. He must employ new knowledge and tech-

niques for dealing with machinery, new crop varieties, revised rations for livestock and poultry, fertilizers, and chemical aids to combat insects, weeds and disease.

India's dairy imports jumped 35 per cent last year to more than \$20 million, and have opened a bigger market to the world's dairy producers. Australia and New Zealand are important suppliers of dairy products to India, while Holland and Denmark are the major sources of canned milk. The U. S. moved

strongly into the picture last year with its surplus disposal programs.

The Food and Agriculture Organization is launching a program to encourage the use of atomic energy in agriculture. This includes animal feeding experiments, irradiated food tests, atomic radiation of potatoes to delay storage decay and increase sprouting, developing of rust-desistant oats types by radiation, developing new strains of poultry. In fact, the potential contribution of atomic energy to agriculture could be about the

same order of magnitude as its contribution to the generation of electric power.

Science and technology have made it possible for fewer and fewer people to produce more and more, but the increasing costs of operation have created complexing problems for the Western Canadian farmer today. Less than fifty years ago almost one-half of the population of Canada was directly engaged in some form of primary agricultural production and in the past, farmers made up the largest single group of buyers.

**For Big Savings on Big Acreage Farming . . .**



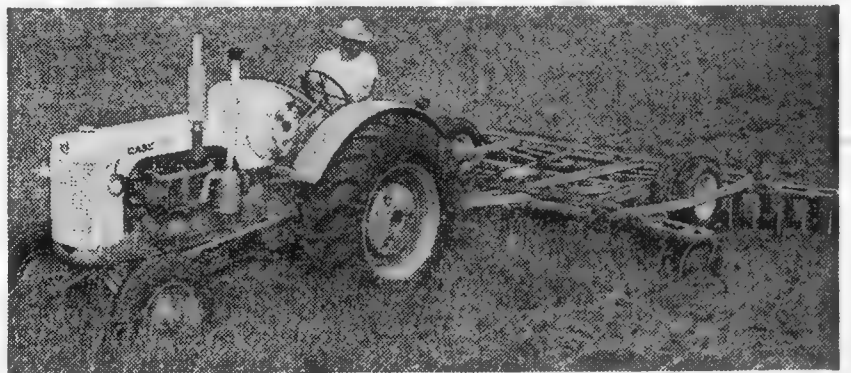
# New CASE 600 Diesel Propane King of 6-Plow Tractors



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# British Columbia's Most Fertile Corner

*The story of the Reclamation of the Famous Kootenay River Flats at Creston.*

By LEONARD D. NESBITT

**B**RITISH COLUMBIA is a province of massive mountain ranges whose high crests, covered with perpetual ice and snow, give birth to many streams which ultimately merge into great rivers. On the eastern slopes of the Rocky Mountain range these rivers pursue courses across the prairie provinces of Canada and also the northwestern states of the United States. Wherever these mountain-born waters flow, agriculture is productive, industry expands, populations increase and villages, towns and cities thrive.

While the mountain ranges are beneficial through providing a continuous water supply, and also forests and mineral wealth for Canada's most westerly province, they limit the area of arable land. Only about two per cent of British Columbia's area is suitable for agricultural purposes and the annual acreage in crops is less than 750,000 acres.

But one of the richest pockets of land in Canada, and perhaps in the whole world, lies in the Kootenay river delta, in the southeastern corner of British Columbia, contiguous to the bustling town of Creston. This area is known as the Kootenay Flats, and was formed by sedimentary deposits on the part of the Kootenay river over the range of the centuries. The rich soil has a depth of 350 feet and contains most of the constituents which contribute to the highest degree of fertility. Its richness is comparable to the soil of the famed Nile delta in Egypt.

## The Flood Menace

The serpent in this agricultural Eden is the danger of spring flooding when melting snows over a range of mountainous watersheds swell the Kootenay into a raging torrent, carrying as high as 100,000 cubic feet of water per second in periods of the worst floods. The 21,775 acres of cultivated land on the Flat is a reclaimed area, salvaged from the winding river by dykes. But unusually high floods on two occasions in the past 18 years (in 1938 and 1948) have resulted in the river surmounting the dykes and inundating the growing crops.

When winter snows are heavy in the high hills, the following month of June is a period of anxiety to the people of this region, and well it might be when it is realized that the average production of farm wealth from the Kootenay Flates is around \$430,000 a year.

The exasperating feature is that this region, with its dependent population of around 5,500 people, could be insured against flood disaster to its greatest asset if the governments of Canada and the United States could agree on river control, land reclamation plans and hydro electric development. The Kootenay is an international river and projects affecting its waters must be a matter of mutual agreement. On occasions over the past 20 or 30 years there have been agreements by both nations on land reclamation schemes, but never at the same time. Now the hydro electric power problems have stalked into the arena, complicating matters still further.

The United States government has plans to build a hydro electric dam on the Kootenay at Libby, Montana. Such a structure would solve the flooding problem on Kootenay Flats as the dam could hold spring floods, reducing the river flow to 60,000-

second feet, the danger point at Bonners Ferry, by creating a storage basin upstream holding 5,000,000-acre feet of water. But that backwater would go up into British Columbia and flood 13,000 acres of pasture land there, which would again bring about inter-governmental involvement and long-drawn-out negotiations.

## Reclamation Possibilities

Not only would the Libby dam prevent the flooding of the present dyked area of 21,775 acres at Creston, but it would enable another 15,000 acres of the Flats to be reclaimed. Close to 37,000 acres of fertile crop land worth from \$200 to \$250 an acre is of immensely more value to British Columbia than 13,000 acres of pasture land! But the power problem is another poser seeking solution.

Another alternative is to increase the outflow of Kootenay Lake, into which the river flows, by enlarging the capacity of the West Arm of Kootenay Lake, and also the continuance of the Kootenay River below Nelson from that Arm, which drain the lake into the Columbia River. Some work of this nature has already been done by a power company which reduced the flood peak by some 4 feet.

Sooner or later some effective means will have to be provided to prevent land being flooded in this oasis of fertility. It is located in an expanding industrial region close to the giant operations of Consolidated Mining and Smelting Co. at Trail, Kimberley and other localities, and also to the rich coal mines and iron deposits in the Crows Nest Pass. As the region expands industrially, aided by ample supplies of electric power, food in abundance will be needed. There are now about 100 farmers on the Flats and they grow wheat, coarse grains and peas, and live on the high ground above the Flats because of the flooding danger. Some farms are as much as 1,000 acres in extent. If protection from flooding could be assured the trend would be towards smaller farms growing specialty crops to supply the needs of the increasing population.

## The Course of the River

To get a thorough understanding of the situation on the Kootenay Flats one must follow the course of the river of that name. It rises in the Rocky Mountains northeast of Columbia Lake, and flows southward passing that lake (which is the source of the Columbia River) at Canal Flats, at a distance of about half a mile. At that point the Kootenay is about 11 feet higher than Columbia Lake. The river continues its southerly course into Montana and then turns westward into the panhandle of Idaho, and northward again into Canada, and enters Kootenay Lake 18 miles north of the U.S. boundary (see map).

That lake is 90 miles long and from one to five miles wide equaling 170 square miles. At Proctor, B.C., an outlet from the lake, known as the West Arm, flows past the city of Nelson and again becomes the Kootenay River which discharges into the Columbia at Castlegar, 20 miles from the International Boundary.

Above Bonners Ferry the river is a torrential stream, flowing between canyon walls. Then it emerges into a flat valley from 2 to 5 miles wide, along which it has cut a serpentine course from Bonners Ferry in Idaho

to Creston in B.C. In that 37-mile stretch there is 80,000 acres of alluvial land, which is about equally divided between the two countries. The river is continuing to deposit silt and 300 acres of new land has been redeemed from the lake since 1904.

## The Baillie-Grohman Plan

The history of the attempts to reclaim the alluvial flat lands of the Kootenay delta goes back to the early 1880s, when W. A. Baillie-Grohman, a writer and sportsman of renown, along with his lifetime friend, Roughrider "Teddy" Roosevelt, who was later to become U.S. president, came up the Kootenay Valley on a hunting expedition. Baillie-Grohman was impressed with the prospect of rescuing this pleasant, fertile delta land from flood and in his mind a plan developed for achieving that objective.

He had a good knowledge of the river system from its source and his scheme was to cut a canal across the ½ mile separating Columbia Lake from the Kootenay River which would divert flood waters from the river into the lake. He also planned to widen the outlet of Kootenay Lake. The British Columbia government gave him the right to carry out this plan and also a concession of 40,000 acres on the Kootenay Flats at \$1.00 an acre. Baillie-Grohman then formed a company backed with British capital and proceeded with constructing the canal. Then the Canadian Pacific Railway, fearing its line down the Columbia Valley, which was being surveyed, would be flooded, protested to the federal government, as did also

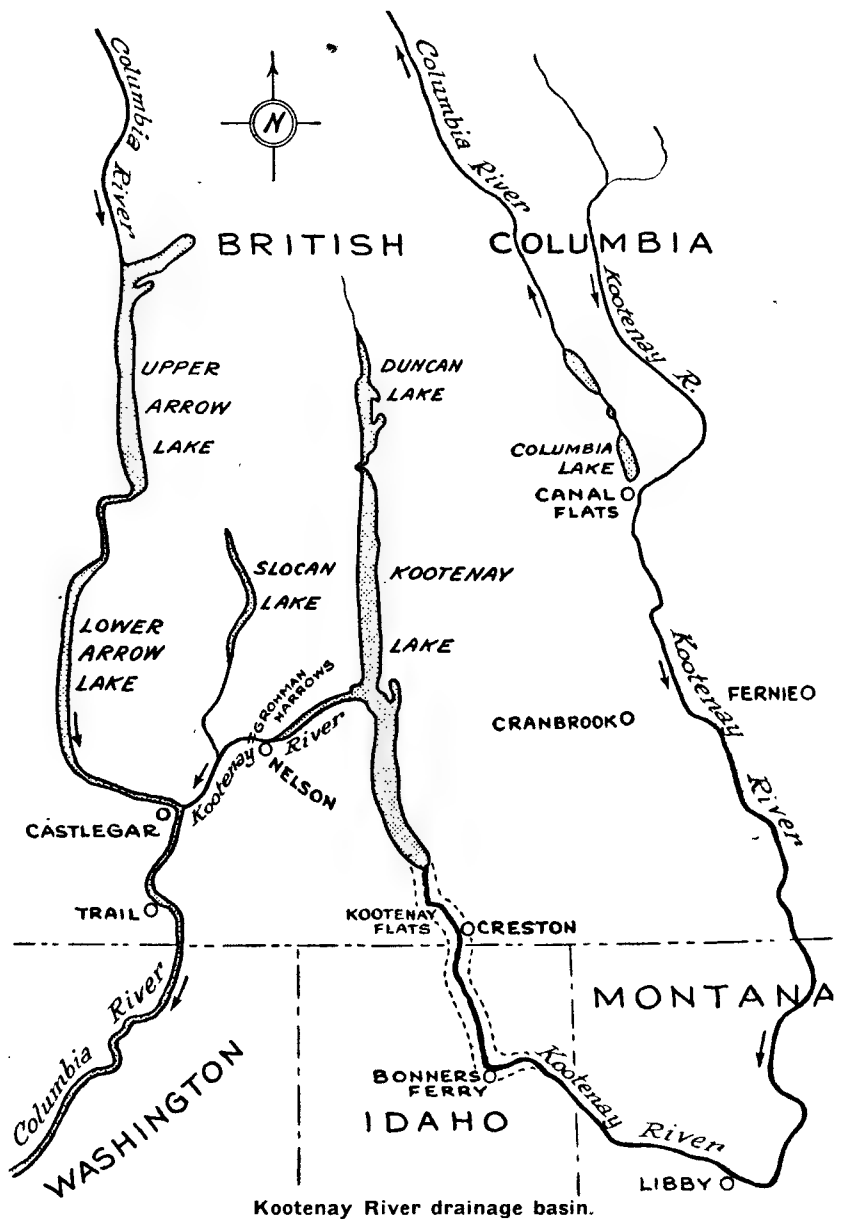
some 14 Columbia Valley settlers. Ottawa had already given consent to the plan, but imposed further restrictions because of the complaints, and the canal, which cost \$100,000.00 was abandoned. The company made a number of attempts to dyke the river on the Flats and enlarge the lake outflow but the shareholders became discouraged and the company withdrew from the operation.

## Revival of Effort

Then followed a period of interminable inter-governmental conferences, procrastination and wavering, with desultory efforts at river dyking. But aggressive residents of the district were determined that definite action should be taken. The first practical step was taken in 1916 when T. D. Pattullo, then minister of lands for the province, was in Creston. Upon being pressed for action he told Guy Constable, "you can have 10,000 acres if you reclaim it." Later when the minister got back to Victoria, Premier John Oliver said to him, "I hear you have given away some of our land." Pattullo replied in the affirmative and the premier said he heartily agreed. Later Pattullo told some of his confreres that, "what I've done will keep Constable busy for some years."

Constable did get busy, along with Frank Putnam, later B.C. minister of agriculture, and Frank and Roy Staples. The latter were farmers, who had made money in various ventures, put up \$90,000, out of \$100,000 to be raised. Progress was slow, however, and it was 1936-37 before 8,000 gross acres out of the 10,000 grant were dyked. In 1938 came the flood with crops ruined, but that did not discourage the men in-

(Continued on page 31)





Guy Constable, pioneer Creston conservationist.  
(That's a carnation in his button-hole)

No individual has done more to promote the reclamation of the Kootenay Flats than has Guy Constable, who has been a resident of Creston since 1904. Over the intervening years he has worked endlessly on behalf of the project, drawn up briefs, appeared before government bodies, prepared pamphlets and delivered addresses to further the development. He was president of the Creston Reclamation Co., formed to reclaim a grant of 10,000 acres from the B.C. government, the first to receive land under the present set-up. He has occupied many positions of importance in the development ever since.

Guy Constable was born in Eng-

land and graduated as a mining engineer, following in the footsteps of his uncle, Horace Mayhew. It is interesting to note that this relative who had much to do with his bringing up and education was the only business associate of W. E. Gladstone, a great British Prime Minister, and as such had outstanding success in the discovery and operation of coal and lead mines on the Gladstone Estate at Hawarden in North Wales.

Mr. Mayhew came to Creston with his nephew to examine the Alice Mine on Goat Mountain, just back of the town, in which he had long been interested. Having decided to bring the mine into production, he left Guy Constable at Creston in February, 1904, as manager of the property.

"How did you come to be interested in reclaiming the Flats?" I asked him.

"I was well acquainted with the history of past efforts to reclaim the land," Mr. Constable replied, "having known of the Baillie-Grohman plans and efforts through correspondence with him, and I saw the validity of his theories and enthusiasm. Perched up at the 'Alice', three thousand feet above the Valley floor, the Flats were an inspiring and wonderful sight day after day. As well, I was familiar with dykes and the reclaimed lands of the estuary of the River Dee adjacent to my home. I guess reclamation was in my blood. Most mining men trace their way through life by holes in the ground, but here was a chance to do something for posterity."

Phosphate fertilizers for grain crops are best applied at seeding time,

says Dr. C. F. Bentley, associate professor of soils at the University of Alberta. Such fertilizers for hay and pasture fields should be applied as early in the spring as possible, as the fall or spring, whichever is the more convenient.



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Air view of the Kootenay Flats under flood.

(Continued from page 30)

ured to vicissitudes. The dykes were repaired and other districts formed and developed.

The river is 500 feet in normal width as it winds in ox-bow fashion along the Flats. The reclamation procedure involves constructing dykes 6 to 8 feet high along the river banks, and tying them to the adjacent foothills by cross dykes, some 30 feet in height. The protected land must be drained at certain times by pumping at other times they drain naturally. There are now four distinct districts in operation, the Reclamation, Creston Dyking, Nicks Island and Duck Lake. The total cost of construction was around \$700,000. The average wheat production per acre is 35 bushels, highest in Canada, and coarse grain production on a parity.

On the hills surrounding the Flats fruit farms produce in abundance apples, pears, cherries and other fruits. The region has a mild climate, many scenic spots, plenty of hunting and fishing and is a favored spot for retirement on the part of prairie farmers and others.

The Creston district is a pleasant place and populated with friendly people. Once the troubles of the Flat lands are overcome permanent prosperity should have an abiding place there.

Philosophic!

"Sure sorry to hear of your wife running away with the hired man," a man told his neighbor.

"Well," said the neighbor, "it settled a touchy problem—I been wanting to fire him for months."



One spring morning my Dad went to get geese eggs. When he came home, he noticed his watch was gone. The next day he went for more eggs, and where do you think he found his watch? It was under a goose in the middle of the barn where she was all alone. — Justina Walter, Pibroch Colony, Pibroch, Alta.

One evening this winter I was visiting at my friend's place. As I went into the barn, I saw a surprise, three three-months-old kittens were sitting on one cow. It is very seldom that a cow won't jump up when a cat crawls onto her back, but this cow didn't mind. They had looked for a warm place to sleep for the night. — Diedrich J. Fehr, Morden, Manitoba.

My sister lights the fire at our school every day. She doesn't wear her good mitts to light the fire, so she wears an old pair. She leaves these old mitts at the school. One morning, as she was putting on her old mitts, she felt something fuzzy. She took the mitt off and tipped it up and guess what came out. It was a mouse. It ran across the floor and down a hole. — Wendy Nikish, Stone, Sask.

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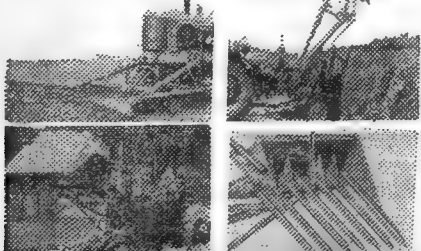
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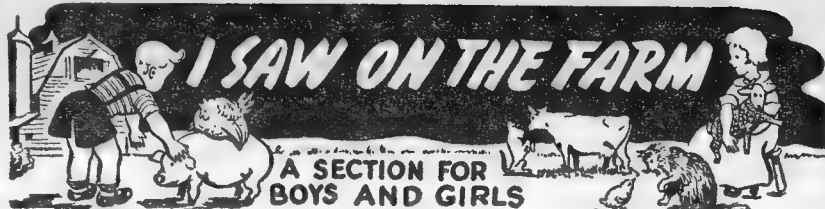
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### A SECTION FOR BOYS AND GIRLS

Our dog, Bruno, is six months old. We pull our water home on a hand-sleigh. One day Bruno grabbed the rope from my sister and ran away over into a neighbor's yard. The pail flew over the icy road. My sister went on to the well, while I had to run for the sleigh. Since we live in town and we didn't want our dog or sleigh to get run over, besides we don't like carrying the pail full of water so far. — Carolyn Cottier, Kelwood, Manitoba.

Mother had a flock of young goslings and the old goose and gander were leading them around, and I fed them every evening in their pen. One evening I went to feed them and what do you think I saw: our old bull got loose and was in the pen eating the goslings' chop, when up came our old gander, took the bull by the throat and hit him with his wings so hard that the bull had to go away, and the goslings came back and ate their chop. The old gander felt very proud of himself. — Mary P. Walter, Pibroch, Alberta.

The other day, as I was going for the milk cows to the straw pile, I saw something running after my pet goat. His name is Billy. This happened in the morning, and the sun was just coming up, so at first I couldn't see very well what was chasing Billy. As soon as Billy heard something close behind him, he turned around very fast and hit the coyote under the chin with one of his ten-inch long horns. I had a good laugh and when the coyote saw me he ran away. Then Billy came to me. He is only eight months old. — Evelyn Claris Bauer, Surprise, Sask.

One sunny day, in mid-summer, I was riding my wagon in the garden and helping mummy carry some heads of lettuce to the house. While mummy was getting the lettuce, since she didn't like the chickens in the garden, I saw one picking at a small sunflower plant. I kicked some dirt at it so it would get scared and go away. The chicken saw me and started to run through the big patch of sunflower plants. One of the sunflower plants sprung its big head down and knocked the chicken out. Mummy took the chicken to the house and gave it a drink of water. The chicken got better. — Daniel Cobon, Breton, Alta.

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3 1/2 oz. (35 to 50 calves) **\$1.00**

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One day I took water out to the bucks with a pair of horses and a water tank. When I was half way there I tipped over and my horses ran away. I just lay there. When I came to myself I stood up and looked around and I saw that it was true. — Zaharias J. Klunsasser, Bench Colony Box 519, Shaunavon, Sask.

It was on the 25th of December my father came home from milking. He said I should come down in the barn, so I did. To my surprise, there on the hay were two little twin calves fast asleep with their mother. They had a red spot on their heads and the rest was all white. Then I said to my father that was a nice surprise. — Annie Stahl, Box 25, Cayley, Alta.

After the recent snowstorm I took my sled and was going towards our hill with it, for I wanted to do some coasting. When I neared a clump of trees I noticed that the dog, Buster, grew quite excited and began to dig in the snow. I watched, fascinated. Soon I saw a partridge pop from where Buster was digging. It stood quietly for a moment, then there was a whirr of wings and it flew away. — Gerta Jarvis, Box 565, Stony Plain, Alberta.

One day my mother and father went to see grandmother. They told me to watch the chickens because the coyote comes often to take chickens. By and by I saw the coyote come galloping down the road. At first I thought it was my uncle and I was afraid. After I saw him jump for the chickens I ran out of the house screaming and so the coyote ran away. It still stopped to listen. At five o'clock my uncle came. I told him about what happened. He wished he had come when the coyote was here. But that night I had a sore throat. I am 8 years old and in grade 3. — Margaret Omillion, Iron River, Alberta.

One of our sows had 14 little pigs of which 8 lived. It was real cold that night, so my dad took them in the house to warm them up, and I noticed one that was so cute. He was white with red, just like a coat. He looked so nice, so I picked him up and I noticed he was bleeding from the mouth. I looked and saw that his tongue was cut up at the end, so I started feeding him with a nipple. He had trouble in sucking cause it hurt him so much, so I just poured milk in his throat for two days. On the 3rd day I really thought he would live, cause then he started sucking the nipple, but two days after he died. — Eddie Strasboury, Box 67, Bonnyville, Alta.

One morning, while dressing, my sister felt something in her skirt pocket and screamed that it was a mouse. She screamed so loud that the milkers, who had just finished milking, came in to see what was the matter. Letting the skirt fall to the floor, I picked it up to see if it was really true and was surprised to see that it was only one of our door keys. — Elizabeth P. Stahl, Box 96, Lethbridge, Alta.

I and Fred went for a walk one day. We saw a rabbit looking for something to eat. We went home to bring the dog to catch the rabbit, as we came back, the rabbit was gone away. We went back farther and we saw a big owl. As we came closer, we saw the owl had the rabbit. The owl flew away and left the poor rabbit dead. — Peter E. Walter, Box 25, Cayley, Alta.

One day, when I was doing the chores, I heard a noise like somebody was taking the grain loader away, so I went out to see what the matter was. Mom's registered Jersey had both of her front feet in the auger part of the grain loader. She apparently got one foot out of it. My brother called to my mother and she went out and tried to get her foot out, but she couldn't, so she came to the house and waited until my dad came home from hauling grain. When my dad got home he ate supper and went out and tried to get it out of the auger but he couldn't get it out, so he sent my little brother to the house to get the saw and he sawed the auger and her foot came out and she feels better now. — Betty Drader, Box 1711, Coutts, Alberta.

One day in the spring my father set our cow out in the yard, he tethered her and then went to town. I stayed home with my mother and brother. While I was in the house the cow broke loose and I saw her wandering by the window. I called my brother and we went out to try to catch her. The cow got scared and started to run. After much chasing we finally caught her when she went into the bush. My brother caught her by the tail and I grabbed her by the neck, but my dog started barking and the cow got away from my brother. I hung on but was thrown off. My brother and I got up again and we finally cornered her in the pasture and brought her back to the barn. My father never tethered her again. Now we leave her in the pasture. — Ken Still, Box 164a, R.R. 1, Winnipeg.

I guess this is rather late, now, but here is my "I Saw On The Farm" last spring: We had been bothered by a chicken hawk making passes over the chicken yard, scaring the wits out of the chickens. Our truck was parked about 10 feet from the door of our house one night, and, as I went out for some forgotten reason, I saw that fool hawk sitting on one side of the box, and an owl that had been living in our woods a few months, on the other side squawking at each other. I suppose they would have started fighting if I hadn't come out just then. By the way, before the last snow the hawk was still making passes every once in a while, but one of the neighbor's kids found a dead owl in the ditch. I guess it must have been the same owl as I don't ever remember hearing or seeing it after that, so I suppose that's what happened to the poor, skinny, flying mouse-trap. — Jerry Kerns, Elnora, Alta.

The organ of affection, in times gone by,  
Was thought to be the liver; not the heart.

I can't visualize a valentine, no matter how I try,  
Of a "hunk" of liver, speared with Cupid's dart.

And would it fill your soul with romance,  
If your heart for love was achin',

To receive a card: all spattered o'er  
With liver, fried with bacon?

— Mary Armstrong, R.R. No. 2, Cochrane, Alta.



# POULTRY

## Year Round Poultry Production

By E. GROULX

**SPRING** is considered by most poultrymen as the best season of the year to start their chicks. The trend favors February and March hatches, so a high percentage of large eggs are high priced. Many poultry raisers think chicks hatched late in the spring or summer and fall are weak and never develop or advance from one stage to another by a process of natural or inherent evolution.

Nutrition has made it possible to hatch strong baby chicks at any season of the year. In many parts of the country producers are now brooding three and four times each year—they have found that summer and fall-hatched chicks live and lay equally as well as those hatched earlier in the spring. There are several advantages to having three or more hatches evenly spaced over the year. Where one hatch of chicks per year is raised, a large brooder house and many brooders are required, whereas by brooding fewer chicks more often, the poultrymen get by with less brooder space and equipment.

Brooding in January and February is expensive from the standpoint of fuel. Poultrymen say that it costs three cents per chick to brood in January, and one cent per chick in July and from the standpoint of the sale of eggs, there is an advantage of having a uniform production of all size eggs all months of the year. With one spring brood the entire flock starts into lay with smalls and a few mediums at a season when these eggs are in surplus — naturally the price is low in comparison to large eggs.

### Three Broods a Year

One advantage in having two or more broods of pullets per year is the "feed bill". If the poultryman starts all his pullet chicks in one brood, the old hens are not able to pay for their own feed, raise a new crop of pullets and feed the family. With three broods each year — February, July and October — starting only one-third as many at one time, the layers maintain a uniform income. Off-season broods start laying small and medium eggs when these sizes enjoy a much better price relationship with large eggs. Therefore when the large eggs demand a premium, these hens are laying almost all large-size eggs.

When all equipment is kept operating at all times, replacement pullets are available several times per year. The brooder house and equipment are in constant use, laying houses are always full and the work load is more evenly distributed, more uniform number of cases of eggs will be marketed each week of the year. This plan or replacement and culling seems to be an efficient way to make use of equipment and helps keep egg production on a high year-round level.

Laying houses are divided into five equal sections to house five age groups. There is a complete replacement of each laying section within a period of 15 months. One section is kept empty and ready to house a new group of five-months-old pullets every three months. Four groups are replaced every 12 months. At any one time, laying birds in the flock would be ranged in age from 5 to 20 months, and the average age of all layers would be 12 months. Extra good layers can be kept three months longer if their production warrants it,

provided either heavy mortality or culling in the oldest group had made house space available.

### Pullets Produce More

With pullet producers, the poultryman has the advantage of high egg production with good egg quality plus low feed requirement per dozen eggs. Raisers should obtain 210 eggs per layer annually. The feed requirement per average bird should be about 120 pounds, including 25 pounds of feed to grow the replacement bird.

Pullets make more efficient conversion of feed into eggs than do older birds. As birds advance in age beyond the pullet year-egg quality also declines. Poultrymen will have advantage of lower cost of chicks in so-called off-season purchases. The average return of all birds marketed will be higher because sales will be distributed throughout the year, while depreciation costs are held to a minimum by year-round use of equipment.

Five groups are required. First group is housed in section one; the second, three months later, would go in section two; the third, six months later, would go in section three, and so on. At the end of 15 months, section one is ready to be replaced, the remaining birds in this section are cleared out and a group of five-months-old pullets replace these older birds. With the brooding of chicks every three months definite age sections are maintained, yet there is ample time for clean-up between broods.

In effect, the flock owner has five separate laying flocks. More than 80% of total laying house capacity is utilized throughout the year. This figure is based on an expected mortality of about 1 to 1½% per month and culling of 1½ to 2% per month. At the end of the 15-month cycle, some 35 to 40% of the original birds housed will be gone.

Subdivide housing into main sections to house five age groups. Keep one age group in each section, remove and replace the birds in each housing section completely at end of a 14 to 15-month laying period. Consolidation of birds still in production into older groups may be considered. Replace one unit every three months. Start 10% extra pullet chicks to allow for culling and mortality up to laying age. The number of laying age pullets replaced annually should equal the average flock size.

Place order for chicks sufficiently ahead of time so that good family stock, bred to lay 200 or more eggs during pullet year, and do not carry birds through complete molt into second year for commercial egg production.

Excessive frost on the henhouse walls can create a disease hazard. The excess frost will start a chain reaction of wet litter and dirty eggs and disease. Profitable poultry management includes proper ventilation for the henhouse, but arranged to prevent chilling drafts or excess loss of the heat generated by the flock.

A good winter poultry mix has been suggested by the Saskatchewan Department of Agriculture. A mash made up of home-grown grains, chopped, with added supplements should be available at all times, with whole grain fed once or twice a day. Whole grain mixed with a pelleted concen-

trate can substitute for the mash, and eliminates the chopping chores and careful mixing with concentrates. The birds also waste less of the coarser mix.

Proper lighting in the henhouse becomes more important during the time of year when the days are still short. A hen requires some 14 hours of light per day for maximum production. When extra artificial light is turned on in the evening, a dimmer switch is necessary to encourage the birds to roost as they would naturally.

Lack of a proper water supply may cut winter production of eggs. Poultrymen should remember that if a hen doesn't drink enough water early in the day it will not have a hearty appetite nor lay regularly. Ice on water prevents drinking and decreased egg production follows close behind. A good manager makes sure his hens have plenty of clean, fresh water with the winter chill removed.

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BUY YOUR requirements at the following 1957 BULL SALES: —

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- Edmonton — March 25 - 29.
- Red Deer — April 3rd.
- Stettler — April 18th.
- Cereal — May 18th.

- Brooks — May 23rd.
- Lacombe — May 29 - 30th.
- High River — June 1st.
- Lethbridge — June 5 - 6th.
- Camrose — June 7th.

## ALBERTA HEREFORD ASSOCIATION

REMEMBER:—The First Canadian Hereford Round-Up Congress, JULY 3 to 9, 1957

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#### DAIRY ASSOCIATION OFFICERS

The 1957 slate of officers for the Alberta Dairy Association:  
President — W. D. Miller, Calgary.  
Vice-Presidents — J. A. Eaket and Jas. Bentley, both of Edmonton.  
Secretary — W. Empey, of Edmonton.

Directors: S. Colpitts, past president, of Calgary; Stanley Fabbri, of Medicine Hat; and A. J. Ottewell, R. C. Briggs, S. H. Thomas, C. R. Currie, all of Edmonton.

Last year 357,000 acres were sown to rape seed in the three prairie provinces, but the greatest acreage was in northwest Saskatchewan.



### Alberta's Dairy Industry

ALBERTA is the third largest dairying province in Canada, and the production from its dairy herds in 1956 had a total value of \$51,748,000. The total milk output was 1,413,309,000 lbs. Of that volume 50% went into creamery butter, 31½% into fluid sales, 3½% into ice cream, 2½% into concentrated, etc., and 1.6% into cheese.

This information was given to the Alberta Dairymen's Association at its 36th annual meeting held in Calgary the first week in February, by the president, S. Colpitts. Sales of fluid milk increased from 6% to 8% last year because of the increased population. The average production per milk cow was 4,530 lbs. per annum, but 6,000 cows, tested under supervision of the provincial government, produced 9,100 lbs. per annum.

Mr. Colpitts said Alberta butter won championships at many exhibitions. Achievements of the Central Alberta Dairy Pool plants at Ponoka and Stettler, and also the Viking Co-op. plant brought honors from the Canadian National Exhibition and the Toronto Royal Winter Fair. Richards Bros., of Red Deer, Ayrshire breeders, exhibited 7 animals at the Toronto Royal and won 4 firsts, 1 second, one third and 1 fourth. Their senior sire was grand champion and two sons were junior and reserve champions.

#### The Non-Fat Fad

DR. R. H. THORNTON, head of the department of dairying, University of Alberta, spoke of "Living on the Fat of the Land". His address dealt mainly on the disposition of nutritionists and medical people to discourage consumption of fats as contributing to heart disease and some are advocating a reduction in milk and butter consumption. Dr. Thornton said Canadians consume

half as much more dairy products than do people in the United States, and there is half as much again more heart cases in the U.S. than in Canada.

There have been a lot of theories, the speaker said, supported mainly by circumstantial evidence, as to the effect of fats in causing heart trouble. But fats in butter's competitor (margarine) should be tested to find out their effects on the human body.

More harm than good may come out of any campaign to encourage the use of skim milk, the speaker said. The price of skim milk might go up to that of whole milk and a surplus of butter created. The protein content of butterfat is important as a beneficial food. Milk consumption supplies 80% of the human body's calcium requirements. Where are people to get needed calcium if milk consumption is reduced. Butter supplies only 5% of the total fat consumed by Canadians.

If non-fat diets are to be encouraged, the speaker said, then all meats should be boiled, and people should refrain from eating pie a la mode, salad dressing, gravy and any food containing fats.

There is only 3.7% of total calories in the fat of milk Canadians consume.

The current inclination to discourage the consumption of dairy products because of butterfat content may be a hysterical, short-lived fad, but may also do the dairy industry considerable harm.



Gordon Loveridge, of Grenfell, Saskatchewan, new president of Dairy Farmers of Canada, still resides on the farm where he was born in 1900. Educated in Grenfell schools, he graduated in agriculture from the University of Saskatchewan in 1923. Since graduation he has operated a 640-acre dairy farm, recently enlarged to 960 acres.

#### Milk Consumption Rising

DR. D. B. GOODWILLIE, of the federal dairy division marketing services, said Canadian milk production in 1956 totalled 17,300,000,000 pounds. It would probably be the same in 1957. He was speaking at the Alberta dairymen's convention. Sales of fluid milk increased by 5% last year due to the increased population, and the increase in 1957 would likely be 200,000,000 pounds. Butter manufacturing takes 40% of the total milk production and butter production was down 5% last year and is likely to go down a million pounds or more in 1957. Butter consumption was 312 million pounds in 1956 and will likely be 15,000,000 pounds up in 1957.

Since 1949 the loss of the market to margarine has been 58 million

pounds, but the 2 million increase in population has brought the total consumption up.

The United Kingdom is the world's greatest market for dairy products, and prices have slumped there, stocks being up four times what they were a year ago. New Zealand butter has been selling at 33c, but that price was cut when Holland offered butter at 25c. Canadian dairymen have been saved from severe price cuts by the floor price.

The speaker suggested that every avenue should be explored to meet the popular tastes and encourage the sale of dairy products in Canada. Many different methods of marketing are being tried out successfully in other businesses and dairy people should not be slow in following such a pattern.

#### DAIRY CONVENTION NOTES

T. H. Howes, of Millet, veteran dairyman, told the convention that the aim should be to take care of cows and aim at a lifetime record, not a record for a year or two that might ruin an animal.

The convention passed a resolution asking that the association investigate the methods used by the board of public utilities in developing a price-adjusting formula.

The convention turned down a resolution which asked that the butterfat content of saleable milk be reduced from 3½%, because of the intimation that less fat in dairy products is desirable.

W. H. T. Mead, provincial livestock commissioner, spoke on artificial insemination of dairy cows. In Alberta there were 12,500 inseminations last year and the total may reach 17,000 this year. There are insemination stations at Edmonton, Ryley and Lethbridge, using chilled semen; at Lacombe, Olds and Acme using frozen semen; and new co-operative stations starting at Camrose, Settler, Brooks and Vegreville. There are privately-owned stations at Calgary, Wetaskiwin and Vegreville. The provincial department of agriculture will pay for supplies of semen for one year to new stations provided there are enough cows for one technician, and such be employed, and that money be made available to pay expenses through membership and service fees.

#### DAIRY HERD CARE

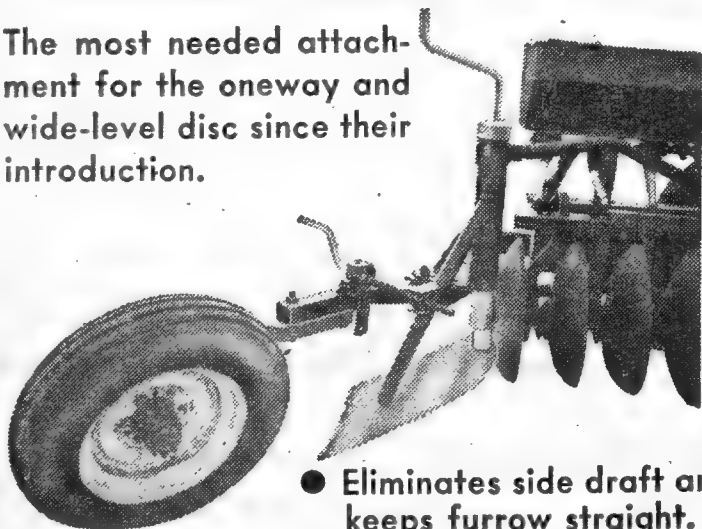
The new antibiotics are no cure-all for mastitis, according to Dr. J. G. O'Donoghue, of the Alberta Department of Agriculture. There is more than one strain of the disease and while the medicine is highly effective against the streptococci type, it has only a partial effect on the staphylococci type.

Dr. O'Donoghue stresses that because of these limitations on the part of the medicines, herd control measures are as important as ever. The key is rapid, sanitary milking procedures and good udder care management. Chilling of the udder during the cold prairie winter, either through inadequate bedding or stanchioning in drafts and chilling winds, is a common source of the trouble. Dr. O'Donoghue points out that the threat of sudden acute mastitis will always be present from such things as udder injury, but the disease can still be kept at a minimum by good herd management.

Life insurance owned by Canadian families increased to \$29.5 million in 1956.

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# DAIRYING

## Better Times Ahead For Dairymen

A BRIGHTER future for the Canadian dairy industry, along with added responsibilities for dairymen, was predicted by Gordon Loveridge, of Grenfell, Sask., the new president of the Dairy Farmers of Canada, in an address he delivered to the Alberta Dairymen's convention.

Consumption of milk products is exceeding production, for the first time since statistics were kept in Canada, and the trend is likely to continue. Butter surpluses are down ten million pounds from last year and are approaching the 30,000,000-lb. mark, which Rt. Hon. J. G. Gardiner, federal minister of agriculture, says is necessary to prevent seasonal shortages occurring.

While milk production was at a peak in Canada last year, the increased population, together with full employment and high-wage rolls, are responsible for the increased consumption of dairy products. The Gordon commission reported that the nation's population will reach 26,600,000 within 25 years and milk production will have to be increased year by year. More of it will have to go into the fluid market.

Mr. Loveridge said the 58c floor price under butter kept many dairymen from going bankrupt in the past ten years. The prices of butterfat and milk used for manufacturing have been going down, and the weighted average of all milk product decreased from \$2.97 per 100 lbs. in 1951 to \$2.88 in 1955, a drop of 9c.

The number of dairy farms in Canada has been going down, and there has been a 6% decrease in the number of heifers since 1953. It takes four years to grow a cow. Hired help has been leaving dairy farms, where working hours are 54 a week, to take jobs in cities where the work week is 40 to 42 hours. In Ontario, Canada's greatest dairy province, the movement of such help to industrial jobs has been at the rate of 2,000 a month, and is not decreasing.

There has been no increases in milk prices in the past five years, up until 1956, while the general price level has been rising steadily, but consumers will have to pay more for their milk with demand rising and dairy people faced with higher costs of operation. The most sorely depressed section of the industry is that supplying milk

for manufacturing purposes.

The dairy industry supplies milk and milk products for the people of Canada and is a billion-dollar industry. It also supplies 40% of the beef and 60% of the veal from herds where cows are milked. "The value of dairy products plus beef and veal is greater in value than the largest and highest price crop of wheat ever produced," said Mr. Loveridge.

Dairy farmers have been able to maintain production under adverse conditions, the speaker stated, because dairy herds have become larger, production per cow has increased, mechanization has been adopted progressively and management has been more efficient.

Mr. Loveridge said that farm people generally are low tariff advocates, but they had better wake up to the fact that the political strength is in the industrial provinces of central Canada and there is no hope of free trade ever coming into being. So dairymen should seek protection against imports of dairy products from countries whose climates permit lower costs of production. He suggested the duty on imported cheese and milk powder be raised from 1c to 6c and 4c. The suppliers of milk for the making of those products are the most sorely depressed.

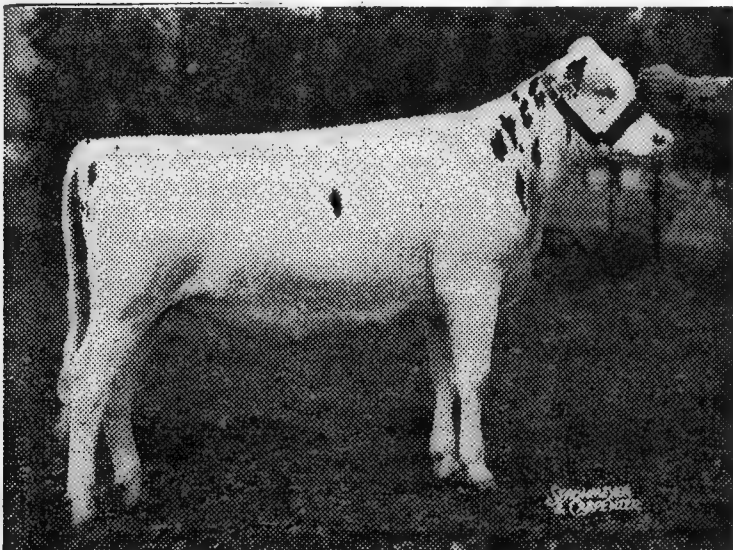
### VALUE OF GOOD PASTURES

Dr. F. Whiting, animal nutritionist at the Lethbridge Experimental farm, told the dairymen's convention in Calgary that pasture is the cheapest form of feed for cows.

Early in the season grass and legumes have about the same nutritional value. Grass in the early leaf stage contains 20% protein, in the shot blade 14% in the flower stage 8%, when mature 6% and in the autumn 4%. Legumes in the flower stage contain 14% and when mature 12%.

Where rainfall permits, legumes should be grown with grasses. Grasses deteriorate in a drouth and do not come back, but legumes do.

Cover crops using oats provide good late season feed. When pastures deteriorate grain should be fed. Wheat can be fed with discretion. Feeding grain will maintain milk flow.



Gracelyn Design Lady, owned by Pickard & Clark, Carstairs, Alberta, and bred by Charles Cox, Calgary, has been designated as the All-Canadian Holstein heifer calf for the current show season. She was first-prize senior heifer calf at the Royal Winter Fair, Reserve Junior Champion at Edmonton Exhibition, and first at Saskatoon and Regina.

# An Invitation— to our members

*At the close of World War 2, when Government sponsored savings and investment plans were not needed any more, the Central Alberta Dairy Pool instituted a Members' and Employees' savings programme.*

## Briefly, it is set up as follows:

That any member of our organization or any member of our operating staff could deposit with the C. A. D. Pool any sums that they might have available for savings or if they so wished deposits could be made on a monthly basis or as otherwise arranged. These savings would remain with the Company and be used by it in its business, but yet would remain on demand by yourself as a depositor. The rate of interest at the start of this savings plan was 3½% calculated on your minimum monthly balance, the interest payable at the end of each calendar year.

This fund of members' and employees' savings rapidly built up to \$35,000.00 and has remained at approximately that figure since that time. In the early years of this programme some of the members simply used it as a chequing account. This, of course, was not the intention of the programme. It is intended to stimulate savings by members and staff personnel and at the same time the sums so saved could be available in case of an emergency and on demand. The liberal rate of 3½% interest did not permit too much bookkeeping. In recent years, however, the movement in and out of these savings accounts has been much more normal.

As a result, we are pleased to announce that as of January 1st, 1957, the 3½% rate has been increased by one per cent. The new rate is therefore 4½%. The other conditions remain the same.

Notwithstanding the fact that our company has or can get sufficient funds to operate its various businesses it does invite and welcome your participation in this savings programme.

The interest rate offered is good and whatever you have deposited is available when needed for any purpose. In the event that you have now some savings deposited with our organization you can be assured that they will be as carefully protected as it is possible for your Board of Directors and Management to protect.

On the other hand, if you have some surplus funds and you are a member of the C. A. D. Pool, we invite you to consider depositing at least a portion of it in our Members' and Employees' Savings account. All deposits are made available on demand.

For further information please write to Central Alberta Dairy Pool, Red Deer, Alta.

This service is available only to members of the C. A. D. Pool and employees of the Company.

### NOTICE!

*Please send your passbooks into Red Deer. They will be brought up to date and returned to you.*

*You may leave them at any Branch of the C. A. D. Pool if you wish. — BUT DO IT NOW!*

# Central Alberta Dairy Pool

"OWNED BY THE PEOPLE IT SERVES"



## Trapping Experiences

By M. J. CAVANAUGH,  
South Hollywood, Sask.

SINCE my article on coyote trapping appeared I have received many letters telling me how my advice helped on the trap lines. I find it impossible to answer all and so take this way of replying.

I trapped mostly coyotes and weasels, also had considerable experience with the Canadian lynx. To the party who wrote saying I had the wrong system of trapping coyotes, I would remind him that setting snares for them is contrary to law. Trappers should obey laws and conserve wild life.

The white weasel does not fear the steel trap nor the scent of man. He is a meat eater and the blood of another animal is his favorite food. He is easiest trapped in the early winter as, when the snows become deep, he travels underneath. You will find him around sloughs and where there is high grass and weeds, where he hunts mice, etc. One day while on the trapline when the snow was deep I heard the pitiful cries of a bush rabbit. I went up to examine him and on picking him up I found a weasel hanging on his throat and sucking his blood. I was surprised to see how vicious the weasel was for he put up a terrific fight when I

knocked him off. The rabbit was dead, but I had a fine weasel pelt.

I found the best method of trapping them is to kill a rabbit, tear off the skin, tie a string to the bleeding carcass and attach a crooked stick thereto, and drag the body through the snow leaving a bloody trail. At intervals, with the use of the crooked stick, drag the bleeding body under the snow, leaving a hole. In this hole set your trap. In the early fall before the snow gets too deep I have found this set very good. Later on there does not seem to be any way to make a satisfactory set for them.

The mink is the first cousin to the weasel, is a bloodsucker and vicious, but is smarter and fears the scent of man. His sharp eye is watchful of traps but I believe the paddle set, outlined in my previous article, would help cover up your traps.

The Canadian lynx is also carnivorous and vicious but very tender when held by a steel trap. I have seen a large lynx caught by the foot in a small trap make no effort to free himself but sit up and cry. But his efficient, ruthless manner of hunting is in a class by itself. An experienced trapper and hunter told me of following the tracks of three jumping deer, along with those of a lynx. At a certain point the deer had been startled and spread out but the tracks of the lynx disappeared. A quarter of a mile away he found the partly eaten body of a deer, the lynx having jumped on its back and killed it. He set some traps by the deer's body and caught a buck lynx with a lovely pelt.

The lynx keeps to one area but seldom follows the same trail, his large, hairy paws acting as snowshoes. If you find a location where he passes tie a red rag in a tree or bush. He is a very curious animal which has nearly led to his extinction. Nearby build a little house three feet long, placing a small log at the entrance, and fasten a large-jawed trap to the log, covering it with leaves. Place a small red rag on the house and scatter catnip or other scent around.

To all trapper friends I would say be merciful to all wildlife. Visit your traplines regularly, and do not let animals suffer long. Respect the laws and co-operate with conservation officers, who are trying to protect wildlife, which should be looked upon as a God-sent gift.

force a manure application with about 100 lbs. of 20 per cent phosphate per acre.

Further tests are being conducted at Acme to find the optimum rates of application of commercial fertilizer.

## Dairy News From B. C.

By P. W. LUCE

DAIRY farmers in the Fraser Valley are very slow in taking advantage of the free vaccination against brucellosis provided by the provincial government of British Columbia. In a carefully prepared critical statement, Dr. A. B. Kidd, provincial veterinarian, has said that only one-half of the eligible calves have been vaccinated to date.

There is a substantial incidence of the disease in the valley, and the lethargy of so many of the dairymen in taking advantage of free vaccination is hard to understand. An official warning has been sent out that the United States will soon bar importation of cattle from any area which is not brucellosis-free. The export is at a low ebb just now, but a total ban would seriously affect the current price of outstanding cows.

All Vancouver Island cattle have been tested, and good headway is being made in the North Okanagan district. Almost all of British Columbia will be under complete control this year, with the exception of the Fraser Valley. More than one-third of British Columbia's cattle population is in that district. W. H. Savage, the British Columbia director of the Canadian Jersey Cattle Club, has reported that there are now 9,000 young Jerseys registered in the Fraser Valley. A year ago the total was about 11,000.

The eradication of brucellosis was urged in the important Clyne report of 1955. It was pointed out that this disease is very costly to farmers, as it causes sterility, loss of calves, and reduction of an infected cow's useful life as a milk producer. Though rare, the disease sometimes appears in humans as undulant fever.

Jersey cattle breeders are taking steps to try to make it illegal to sell as "Jersey" milk which is the yield of Guernseys, Holsteins, Ayrshires, or any other breed. It has long been the custom in Vancouver to sell as "Jersey milk" any milk that had a trace of the genuine article, and the practice has not been illegal, though perhaps not ethical.

Up to now, there is no dairy exclusively selling Jersey milk. One firm is reported willing to do this in future on a trial basis. The public does not seem to be greatly concerned. The fact that Jerseys won more than 50 per cent of national class leaderships for production in Canada is a matter of indifference, so long as all cream lines stay at three per cent.

The B.C. Milk Board has announced a 12 per cent increase per 100 pounds to be paid by milk distributors. This means that dealers now pay producers \$5.57 per 100 pounds for Class A milk, this being the second increase in two months.

Dealers absorbed the first raise, but passed the second one to their customers. Everywhere on Vancouver Island, in most country districts, and in Vancouver and New Westminster, home delivered milk now costs 24 cents a quart. Store price is 22 cents a quart in cartons.

## Treatments of

### ARTHRITIS and RHEUMATISM

constipation	headache	nervousness
colds, flu	indigestion	neuritis
gall-bladder	lumbago	sinusitis

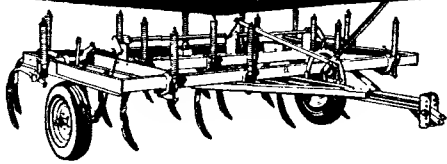
and associated chronic conditions by

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## FERTILIZER TESTS

A series of tests on natural versus chemical fertilizers are under way at the Dominion Illustration Station at Acme, Alberta, and they appear to confirm some earlier findings.

The convenience and efficiency of chemical fertilizers is partially offset by their costs. On mixed farms the manure is usually free except for the cost involved in spreading it on the land. The fertilizers showed the greatest yield increase in the first year of the tests, but the manure proved to have the greatest residual result which showed up the second year. Therefore the manure proved on the long run to have the greatest cumulative affect on the yield, and had the added advantage in that it added fibre and organic matter to the soil.

On the basis of these and the similar results obtained elsewhere, it would be desirable to use manure on cereal crops whenever it is available. Since manure has a low content of phosphorous, it may be well to rein-

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## The Half Loaf Of Bread

By LELA ANDREWS

MOTHER and Dad were married in March of the year 1917, and after the ceremony, they moved directly to their homestead in the Ghost Pine District of Alberta. This was a new life for Mother.

She was a city girl, born in New Brunswick, and the eastern ways were still upon her. Her father, a rambler, had been a jack-of-all trades, her mother, a seamstress, but always they had lived in towns, surrounded by people and houses and the security that a tight little community presents. A prairie homestead was quite a different thing.

Mother was only eighteen, a mere girl, and her first house was a one-roomed shack, originally used for a granary. All around it stretched the vast expanse of rolling prairie land with the sweep of sky above. There were few neighbors.

No doubt, Mother was lonely for Dad spent most of his days in the field working the rich, black soil. She had only herself to talk to. This was a far cry from the tiny eastern villages she had been used to and it was small wonder that she viewed the vastness and the silence and the far horizons with something akin to apprehension.

Then, one day in July of that first year, Mother's worst fears were realized. She saw a band of Indians approaching the tiny shack.

What Mother didn't know was that the Indians travelled through the country at this time every year. The Calgary Stampede drew them down from the northern reserve and, when it was over, they trekked home again, their families and horses and homes travelling with them.

Dad knew this and was not in the least alarmed to see an Indian family pitching their camp only a short distance to the south of his prairie home. And when an Indian boy drew away from the bunch and approached the shack, Dad went to meet him.

The boy was, perhaps, fourteen years old, a tall, willowy lad with black hair and eyes and very bronzed skin. He asked for bread.

Mother was flustered. She had only a half loaf of bread left in the house and had intended to bake that day, but hadn't as yet, got around to it. They needed that half loaf of bread for their own dinner. Finally, she decided to explain the situation to the boy.

"Look," she said, showing him the bread. "This is all we've got. Just half a loaf."

The boy's eyes never moved from Mother's face.

"But we haven't any," he said.

Needless to say, he got the bread. Mother couldn't remain cold against such an argument and so she and Dad went breadless for dinner and the Indian boy returned to his family, carrying the precious half loaf with him.

The Indians ate and, then, moved on and Mother had passed her first test in western hospitality.

About the cheapest form of savings and insurance is offered by some farmer co-operatives, among them being the Alberta Wheat Pool and Central Alberta Dairy Pool. By patronizing such organizations savings are accumulated which will be paid out when the member reaches a certain age, or quits farming. If he dies the money goes to his estate. Such insurance and savings costs no money payments — the only requirement is patronage.



Andrew Schlachter, of Whitla, Alberta's 4-H wheat plot champion.

Andrew Schlachter, of Whitla, has been named winner of Alberta's 4-H wheat plot championship. His plot was judged the best of those cared for by the 914 members in the 60 wheat clubs this year.

### An Honest Man

A farmer in desperate need of help at haying time finally resorted to asking the town fool if he could help him out.

"What'll you pay?" asked the fellow.

"I'll pay you what you're worth,"

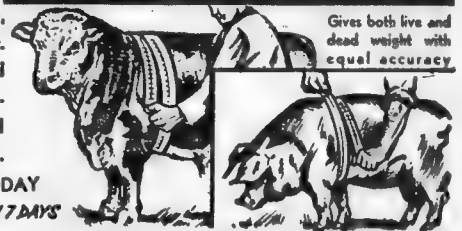
the farmer said.

The other scratched his head for a minute in thought and then said: "Nope — I'll be darned if I'll work for that!"

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# MARCH *of* TIME

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Of all the men who have joined the organization since it was formed 51,000 have died or retired. Their equity has been

bought by the 49,000 active members of  
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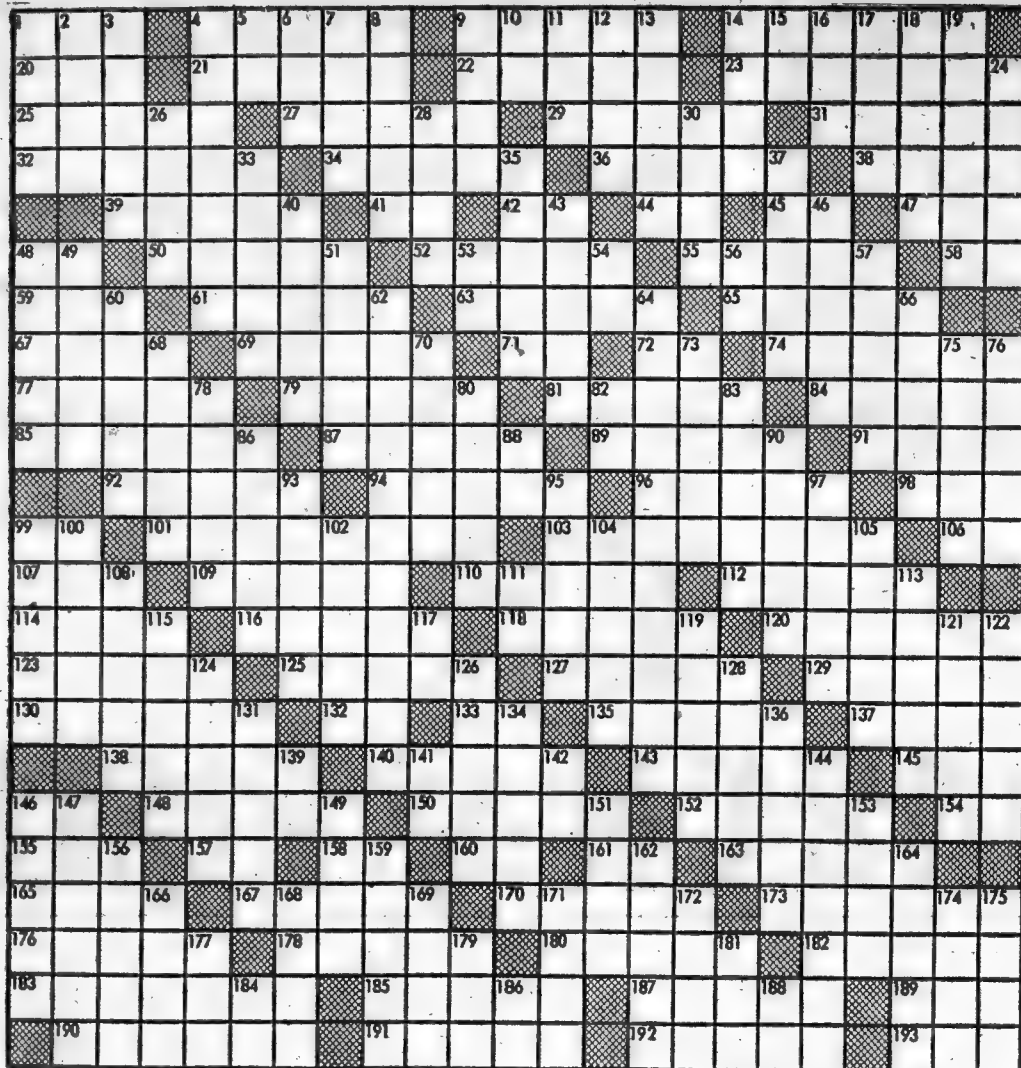
Member 100,000



ARTHUR PROWD  
Working



# Crossword Puzzle



## ACROSS

- 1 Cooking vessel  
4 Smoking device (pl.)  
9 Become void  
14 Rents  
20 Poem  
21 Arabian gazelle  
22 Bay window  
23 Consequences  
25 Looks at malignly  
27 Separate article in party platform  
29 Lowest point  
31 Ordeal  
32 Decorative  
34 Drinking vessel  
36 Kind of car  
38 Buddhist church in Japan  
39 Odor  
41 Continent (abbr.)  
42 News agency  
44 Syllable of scale  
45 Printer's measure  
47 Place  
48 Form of "to be"  
50 Folds  
52 To fray  
55 Lethargic sleep  
58 Prefix; down  
59 Sinbad's bird  
61 To discolor  
63 Deserve  
65 Uncovered  
67 State of mind  
69 Compound ether  
71 Therefore (abbr.)  
72 Sun god  
74 Tolls

## DOWN

- 77 Lowest deck of a vessel  
79 Bayou in Louisiana  
81 Requires  
84 To make tardy  
85 Checked  
87 River of France  
89 Underworld  
91 Greek letter  
92 Gem weight  
94 Slights purposely  
96 Percolates  
98 Drink slowly  
99 Musical syllable  
101 Device for reversing electric current  
103 Huge  
106 Roman weight  
107 To incite  
109 Peninsula at N. end of Red Sea  
110 Consumed  
112 Be sparing  
114 Unusual  
116 Under (Ital.)  
118 Swiss measure  
120 Begins  
123 Stop  
125 Laughing  
127 Path  
129 Rub out  
130 Edible legume  
132 Part of Bible (abbr.)  
133 By  
135 Slumber  
137 Send forth  
138 To hinder  
140 Boredom  
143 Made mistake  
145 Edible seed  
146 British Columbia (abbr.)  
148 Swift

- 150 Fairy tale monsters  
152 Extra tire  
154 North latitude (abbr.)  
155 Dawn goddess  
157 A direction  
158 Interjection expressing hesitation  
160 All right  
161 Addition to a letter  
163 Popular jargon  
165 God of love  
167 Set ablaze again  
170 Old  
173 Island in Persia Gulf  
176 Island of the Cyclades  
178 Religious council  
180 Agitates  
182 Island in Malay Archipelago  
183 Depot  
185 Goddess of horses  
187 Female relation  
189 Occupied a seat  
190 Handle of scythe (var.)  
191 To cause delay  
192 Massage  
193 Cornish prefix; town

## DOWN

- 1 Game played on horseback  
2 River of Europe  
3 Age group  
4 Sketch of a light and brief character (pl.)

- 5 Symbol for iridium  
6 Disease of fowls  
7 Elongated fish (pl.)  
8 Thin, narrow boards  
9 Norse god  
10 Land measure  
11 Transfix  
12 Seven  
13 Older  
14 Italian coin  
15 Printer's measure  
16 Likely  
17 Kind  
18 American Indians  
19 Looked at fixedly  
24 Child's blackboard  
26 Inclined walk  
28 Close by  
30 Old Roman date  
33 Choice part  
35 Part of church (pl.)  
37 Kingdom in Asia  
40 Smallest portion  
43 Former President of Argentina  
46 Ethical  
48 Ship's defensive plating  
49 Wrote "A Visit from St. Nicholas"  
51 Locations  
53 Measure of Sweden  
54 51 (Rom. num.)  
56 River of Asia  
57 Progenitor of violin

- 60 Pain in abdomen  
62 To render unavoidable  
64 Traitorous  
66 Is excessively fond of  
68 Germanic deity  
70 River of Germany  
73 Snake  
75 Nerve network (pl.)  
76 Cookies  
78 Fathers (F.)  
80 Harden  
82 Interjection of incredulity  
83 Appears  
86 President of Confederacy  
88 Symbol for erbium  
90 Locates  
93 Singing voice  
95 A bout  
97 An apartment  
99 Wild  
100 Century plant  
102 Proportion  
104 Approaches  
105 To trap  
108 Majestic  
111 While  
113 Hobo  
115 Compound ether  
117 Preposition  
119 Coffin with stand (pl.)  
121 Chinese weight (var.)  
122 Of a bristle  
124 Giant  
126 Kind of dance  
128 Nickname for U. of Maryland students

- 131 Social outcast  
134 Inhabitants of a foreign country  
136 Resounds  
139 Japanese marine measure  
141 A negation  
142 Pacific island screw pine  
144 Drew off moisture from  
146 Perforated ornaments  
147 Heavenly bodies  
149 Properly  
151 Quarrel  
153 Heraldry: grafted  
156 Kind of goose  
159 Excavated for ore  
162 Move stealthily  
164 Grain to be ground  
166 A list  
168 Anglo-Saxon slave  
169 Drink excessively  
171 Former Russian ruler  
172 Ireland  
174 Sandarac tree  
175 Dislike intensely  
177 Occupy a seat  
179 Portuguese title  
181 Seat of authority of a Bishop  
184 Exclamation of surprise  
186 Greek letter  
188 Symbol for calcium

## Women's Page

Word comes from California that Aunt Sal is improving in health and will be able to make her regular contributions in the April issue.

By Edythe March

March is here, so spring is near; Sun's warming up the days. And if you look you will find 'Tis true in many ways.

HELLO, everyone. Do hope the cold weather we had didn't get you down. However, we all know spring will soon be here, bringing new life with it. I thought you might like to make a loaf that I usually mix up when I am baking bread. I bake all ours for we like it so much better than store bread. No matter what kind of bread I am baking, be it rye, whole wheat or white, I leave about  $\frac{1}{2}$  cup of sponge in the bowl till I'm through mixing the main batch. This loaf can be made various ways. I prefer the raisins, but you might like to substitute currants, walnuts or candy peel, just anything you have handy. Well, here it is, I measured things for the first time. I'll call it—

## Happy-Go-Lucky Loaf

2½ cups of flour (or slightly more),  $\frac{1}{2}$  cup raisins (or whatever), 1½ tsps. cinnamon,  $\frac{1}{2}$  tsp. allspice, 2 tsps. salt. Mix this together in a bowl. To the  $\frac{1}{2}$  cup of sponge I add:  $\frac{1}{2}$  cup of warm water,  $\frac{1}{2}$  cup sugar (white or brown), 2 tbsps. oil or melted fat, 2 tbsps. molasses, 2 tbsps. applesauce, 1 egg.

Beat this together, then add to the flour, etc. Work to same consistency as bread dough. Rub lightly with lard, placed in greased bread pan till double in bulk. Knead down, let rise again, then bake in 350° oven till done. The applesauce is optional, but I like to add it for it helps keep the loaf moist. It is very nice sliced, buttered with a little jam, honey or jelly spread on it. (Doesn't last long here.)

Another thing I like to do when baking white bread is to take a small portion of the dough after it has risen twice, roll it into a rectangle till about  $\frac{1}{4}$  inch thick. Spread with butter or margarine, brown sugar and cinnamon. Cut in  $\frac{1}{2}$ -inch-wide strips across the width. Twist each strip and curl around the other end to form a butterhorn. Let rise till double their size, bake in moderate oven till golden brown on top. Turn out onto rack and when cool spread with a little butter icing. If they become slightly stale, they are lovely warmed up in the oven. I make various forms, twisting them into different shapes, sometimes adding a little chopped red maraschino cherry here and there, amongst the icing. The small cake decorations make them look pretty, too.

The following recipe was obtained from a friend. My neighbor and myself had walked up to her place to have tea. Both my neighbor and I think the recipe nicer with  $\frac{1}{2}$  tsp. soda than called for, but I will give it as it was given me.

## Date Nut Bread

2½ cups flour, 2½ tsps. baking soda,  $\frac{3}{4}$  tsp. salt, 2 cups dates (chopped) (1 whole package), 1½ cups of boiling water, 1½ cups sugar, 2 tbsps. butter (or a little more), 2 eggs, 1 tsp. vanilla, 1 cup nuts. Add boiling water to dates and let stand 20 minutes. Add melted butter and well-beaten eggs to sugar. Sift flour, soda and salt and add alternately with date mixture, then vanilla and nuts. Bake in loaf tins for 1 hr. at 325 degrees oven. Makes 2 loaves.

Solution On Page 46

I made this casserole dish the other night for supper and it was liked. These dishes are nice anytime, but especially if its cold and if you don't feel in the mood to wash a lot of dishes.

#### Hot Casserole Dish

Place sausages (skinless preferred) in bottom of greased casserole. Spread  $\frac{1}{2}$  cup of minute rice over them and thoroughly cover with 2 cups of tomatoes, using mostly juice. Cook in moderate oven till done.

Another one we like where you can use any kind of cooked left-over meat is this one:

Place meat in bottom of greased casserole. Cover with a mixture of peas and carrots. Cover this with gravy, or, if you have no gravy, melt 1 Oxo cube in a cup of hot water and use with another  $\frac{1}{2}$  cup of liquid from the vegetables.

Make a biscuit dough and drop large spoonfuls on this and cook in 400 degree oven till done. Be sure the biscuits are cooked on the bottom. Serve piping hot with mashed potatoes.

I made these dishes up so do hope you all like them, too. I love making up new dishes, do you? They are not expensive and so many of us do have to watch those pennies.

Here are a few hints perhaps some of you have not thought of. It adds variety. When mixing biscuits or dumplings substitute part of the flour with cracked wheat flour or Scotch oatmeal. Cheese (grated) added to the dough, or tomato juice make them a little different. Poultry seasoning added makes a savoury biscuit for a casserole. Grated orange rind and a little sugar added makes a delightful tea biscuit.

This is another of my own recipes, and you will have to make it to the size of your family. I've made it for just the two of us or served it to 40 men.

#### Biscuit Roll

Make a biscuit dough, adding  $\frac{1}{2}$  cup of sugar, 2 tps. cinnamon and 1 tsp. mixed spice.

Roll out on heavily floured board into oblong shape. Spread with soft butter (this is optional), then spread any kind of jam on it. Roll up like a jelly roll. Cut in slices one inch thick. Lift carefully, place one cut side down on floured pan or cookie sheet. Arrange all in pan, close together. Bake in 400-degree oven till done, about 30 minutes. Serve hot with caramel sauce. I gave you the recipe for that last month.

Another of mine:

#### Ham and Apple Patties

$1\frac{1}{2}$  cups minced ham, 1 cup bread crumbs, 2 tbsps. tomato juice,  $\frac{1}{4}$  tsp. mustard,  $1\frac{1}{2}$  cups grated apple, 2 small eggs.

Mix together thoroughly. Shape into patties and fry till golden brown on both sides.

Let's finish up with a recipe for marshmallows:

2 rounded tbsps. gelatine, pinch of salt, 2 cups white sugar, flavoring to taste. Soak gelatine in 8 tbsps. of cold water.

Heat sugar with  $\frac{1}{2}$  cup of water until dissolved. Add gelatine to syrup and just bring it to a boil. Remove from stove. Let stand in bowl till partially cool. Add salt and flavoring; beat with whip until soft, then with a large spoon until only soft enough to settle into a sheet. Pour into pans dusted with icing sugar.

Hope this old recipe works as well for all of you as it has for me. I have used it many times down

through the years. It is very nice. When I cut them into squares and remove from the pan I roll them in icing sugar.

It is time to say good-bye once again and it has been nice visiting with you. They say, the way to a man's heart is through his stomach—well, maybe. Bye now.

#### Old Recipes For New

By IRENE AMOR APPLEBY

NEW ways to make ordinary staple foods more appetizing can some times be borrowed from quite ancient recipes.

This may sound like double dutch, but never the less it is a fact. Many tasty receipts of the past have fallen into disuse in the last half century.

To farmer's wives it is always a joy to be able to make a new and intriguing dish out of an every-day product of the farm. Take the poultry producer's wife, for instance, she has all the eggs in the world to cook with, but if she doesn't look out her family is going to get pretty tired of them. Fried, boiled, creamed, poached or devilled as they may be, one can still wish for more ways to do them.

Browsing through a hundred-year-old book of Mrs. Beeton's, I found several that proved to be tasty and inexpensive. The only trouble with the majority of the recipes found in cook books of a past era is that they contain ingredients that are not familiar to us today, or if they are, are known by other names and therefore often unrecognizable.

Variety was certainly the spice of life in the culinary world of the 19th century. Of course it was the monied class only that could afford to indulge in such lavish living and judgment from the menus in the Beeton book they really went to town when it came to entertaining, whether it was breakfast, lunch, tea or dinner, the table literally groans.

Here, however, are some of these old ways of doing up eggs that are neither too costly or contain ingredients that are hard to get, yet I hope will prove new to most of you.

#### Egg Fritters (Royal Style)

Ingredients: 6 eggs, 2 tbsps. of cream, salt, pepper and frying or pancake batter.

Beat the eggs, add the cream, season to taste with salt and pepper, and pour the preparation into a well-battered mould. Steam gently until set; let it cool; then turn it out and cut into strips about  $2\frac{1}{2}$  inches long and  $\frac{1}{2}$  inch in thickness. Make the batter and dip in the egg strips and fry until crisp and lightly browned. Drain well and serve.

It will take about 20 minutes to set the steamed egg mixture. Any pancake or waffle batter will do to dip the strips in.

#### Egg Fritters (Milanese Style)

Ingredients: 4 hard-boiled eggs, yolk of one uncooked egg, butter (size of small walnut), one heaping tbsp. of flour,  $\frac{1}{4}$  cup of milk, 1 tbsp. ham or tongue (chopped), 4 tbsps of chopped chicken or veal or beef (meat should all be chopped finely), 1 tsp. finely chopped parsley, 1 small shallot or onion chopped and fried in butter, lemon juice, salt, pepper, egg and bread crumbs.

Halve the eggs lengthwise and remove the yolks, melt the butter in a stew pan, stir in the flour, add the milk, boil gently for 2 or 3 minutes then put in the raw yolk which has been mixed with a little drop of milk. Add the chopped meat, parsley, shallot, cut-up yolks of the hard-boiled egg, and a little lemon juice and salt

to taste. Fill the cavities of the whites of eggs with the mixture, coat carefully with egg and breadcrumbs and fry in hot fat until nicely browned. Drain well and serve garnished with parsley. Serves 5.

#### Scotch Eggs.

Ingredients: 3 hard-boiled eggs,  $\frac{1}{2}$  lb. of sausage meat, one beaten egg, bread crumbs, frying fat, 6 slices of fried bread.

Let the eggs get quite cold, remove the shells, and cover each one completely with the sausage meat. Coat them carefully with beaten egg bread crumbs and fry in hot fat until nicely browned. Cut each egg in half and dish them up outside upwards on the hot croutets of fried bread. Serve either hot or cold garnished with sprigs of parsley. These are very good left whole to take on picnics. Serves 6.

#### Egg Production In 1946

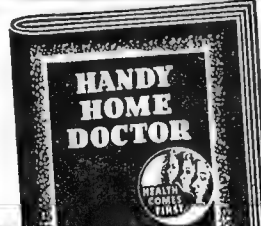
PRODUCTION of eggs in Canada in 1956 totalled 401,611,000 dozen, compared with 383,210,000 dozen in 1955. The 1956 farm production totalled 390,303,000 dozen and others 11,308,000 dozen.

The number of eggs sold for market was 837,622,000 dozen and consumed by producers 51,781,000.

Production by provinces:

	Dozen
Prince Edward Island	6,020,000
Nova Scotia	15,174,000
New Brunswick	7,658,000
Quebec	48,803,000
Ontario	126,863,000
Manitoba	33,056,000
Alberta	39,941,000
Saskatchewan	31,458,000
British Columbia	28,649,000

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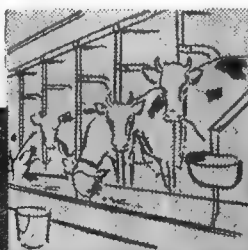


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## Orange Butterscotch Buns

Yield — 2 dozen buns.

- ½ cup milk
- ½ cup granulated sugar
- 1 teaspoon salt
- 1/3 cup shortening
- ½ cup lukewarm water
- 2 teaspoons granulated sugar
- 2 envelopes active dry yeast
- 2 tablespoons grated orange rind
- 1 well-beaten egg
- 3½ cups (about) once-sifted all-purpose flour
- ½ cup butter
- ½ cup lightly-packed brown sugar

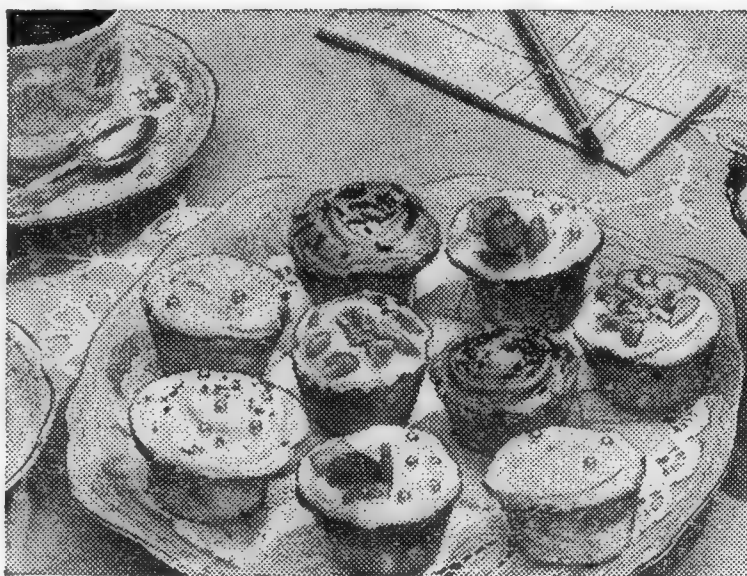
Scald milk, stir in the ½ cup granulated sugar, salt and shortening. Cool to lukewarm. Meantime, measure lukewarm water into a large bowl; stir in the 2 teaspoons granulated sugar. Sprinkle with yeast. Let stand 10 minutes, then stir well. Stir in lukewarm milk mixture, orange rind and well-beaten egg. Stir in 2 cups of the flour and beat until smooth and elastic. Stir in sufficient addi-

tional flour to make a soft dough — about 1½ cups. Turn out on lightly-floured board or canvas and knead until smooth and elastic. Place in a greased bowl; grease top.

Cover and let rise in a warm place, free from draft, until doubled in bulk — about 1 hour.

Melt butter and put 1 teaspoonful in each 24 average-sized muffin pans. Brush sides of pans with the melted butter and sprinkle 1 teaspoon brown sugar in bottom of each pan.

Punch down dough. Turn out on lightly-floured board or canvas and knead until smooth. Divide dough into 2 equal portions. Form each portion into a roll 12-inches long; cut into 12 equal pieces. Shape each piece of dough into a smooth ball and place one ball in each prepared muffin pan. Brush lightly with melted butter. Cover and let rise in a warm place, free from draft, until doubled in bulk — about 1½ hours. Bake in a moderately hot oven, 375° F., until cooked and golden — about 15 minutes.



Party Cup Cakes.

## Party Cup Cakes

Yield — about 1½ dozen cup cakes.

For the Batter:

- 1 2/3 cups once-sifted all-purpose flour
- or 2 cups once-sifted pastry flour
- 2½ teaspoon baking powder
- ½ teaspoon salt
- ¾ teaspoon grated nutmeg
- 2/3 cup butter
- 1 cup fine granulated sugar
- 2 well-beaten eggs
- ¾ teaspoon vanilla
- ¾ teaspoon almond extract
- ½ cup milk
- 4 tablespoons butter
- Few grains salt
- 2 cups sifted icing sugar
- 2 tablespoons (about) hot cream
- ½ teaspoon vanilla

Grease about 18 average-sized muffin pans, or proportionately more small pans. Preheat oven to 400° F. (hot). Sift the all-purpose or pastry flour, baking powder, the ½ teaspoon salt and nutmeg together twice. Cream the 2/3 cup butter; gradually blend in granulated sugar. Mix in eggs, part at a time, beating well after each addition; stir in the ¾ teaspoon vanilla and almond extract.

Add sifted dry ingredients to creamed mixture about a quarter at a time, alternating with 3 additions of milk and combining lightly after each addition. Two-thirds fill prepared pans with batter. Bake in preheated oven about 15 minutes for average-sized cup cake — a shorter time for small

ones. Let stand in pans 5 minutes, then turn out on cake racks and cool.

To Ice and Decorate Cup Cakes:— Cream the 4 tablespoons butter and add the few grains salt. Gradually blend in icing sugar along with hot cream — use just enough cream to make an icing of spreading consistency; beat in the ½ teaspoon vanilla. To decorate cup cakes in a variety of colors, spoon icing into 3 or 4 small bowls. Tint each portion of icing a different shade with food coloring — keep colors delicate and cakes will be prettier. Spread cup cake tops with icing and decorate with silver dragees, bitter-sweet chocolate shaving, chopped nuts, colored sugar, maraschino cherries, candied peel, etc.

## Clam Chowder

- ½ cup finely diced salt pork
- or 6 slices bacon chopped
- 1 medium onion, thinly sliced
- 1 cup diced raw potatoes
- 2 cups water
- 1 20-ounce can tomatoes
- 2 5-ounce cans whole clams (app. 2 cups)
- 1 teaspoon salt
- ½ teaspoon white pepper
- ½ teaspoon thyme
- ½ bay leaf

Try out salt pork or bacon in large, heavy saucepan. Add onions; cook gently about 5 minutes, or until soft. Add potatoes, water and bay leaf. Simmer 20 minutes or until potatoes are tender. Add remaining ingredients and simmer until flavors are well blended. Makes 4 to 6 servings.

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8:30	—	8:35
9:00	—	9:05
10:00	—	10:05
11:00	—	11:05

THE WORLD TODAY

12:15 — 12:50 p.m.

FACTS ABOUT FARMING

1:20 — 1:35 p.m.

P.M. NEWS...

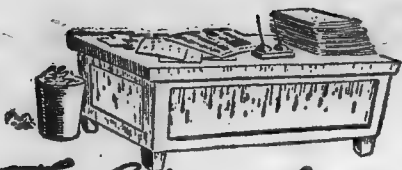
4:00	—	4:10
5:45	—	6:10
10:00	—	11:30 p.m.

THE WORLD TO-NIGHT

11:00 — 11:30 p.m.

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## The Editor's Desk

The dairy farmers of Canada have given a lead to the agricultural industry through developing and advertising and promotion campaign that has shown tangible results.

Recent events in the oil world have made manifest one of the principal factors in the pricing of that commodity. It is the Railway Commission of the state of Texas.

Consumer indebtedness in Canada is reaching close to \$2,500,000,000. As I understand it "consumer debt" does not include mortgages on homes, but debts on instalment buying and in stores. That indebtedness is a first claim on incomes in the years ahead.

"They need no sculptured monuments,  
No canopy of stone,  
To blazon to the curious world  
The deeds that they have done.  
But the prairie flower blows softly,  
And the scented rosebud trains  
Its wealth of summer beauty  
O'er the Riders of the Plains."

T. A. McCusker, of Regina, writes: "I have been a subscriber for many years. I wish to say that your editorials, in my opinion, are by far the best I read in any of the farm publications I receive. Also the articles written by Grant MacEwan, whom I have known for many years, are greatly enjoyed by the members of my family and myself."

Think of your body as a motor car. It is made of protein inside and out. Arteries, glands, connective tissue, muscles, skin and bones — all contain protein and are maintained and rebuilt by protein. Fats and carbohydrates are your bodies' oil and gasoline. They are burned together to produce energy. Vitamins and minerals are its spark plugs, essential to the utilization of food. — Gaylord Hauser.

The ingredients of happiness are so simple that they can be counted on one hand. Happiness comes from within and rests most securely on simple goodness and clear conscience. No one is known to have gained it without a philosophy resting on ethical principles. Selfishness is its enemy. To make another happy is to be happy one's self. It is quiet, seldom found for long in crowds, most easily won in moments of solitude and reflection. It cannot be bought — indeed, money has very little to do with it.

The western favorite "Home on the Range" is said to have been written in 1885 by two boys, Bob Swartz and Bill McCabe, from the Dakota prairies, who were doing a stint at prospecting for copper at Leadville, Colorado. In their cabin they whiled away the time by composing songs. Their favorite had a homesick touch for the prairies and had many verses. The first one:

O, give me a home where the buffalo roam  
And the deer and the antelope play;  
Where never is heard a discouraging word  
And the skies are not cloudy all day.

Mrs. Muriel Gessleman, of Alix, Alberta, informs me that the Cowboy's Christmas poem I ran in the December issue was written for a friend one Christmas long ago by Charles Russell, the cowboy artist.

J. M. Hanson, of Namaka, Alta., writes me outlining what he believes to be at least a partial solution to the wheat surpluses in Canada. He says diversification can be carried out only to a limited extent and for thousands of farmers there is no alternative but to grow wheat. He suggested buying more machinery and manufactured goods from Great Britain, and also from West Germany, Japan and other wheat importing nations. Our industries would object, but they will be in trouble, too, if our wheat cannot be sold in volume. The west has always had to sell its farm products on a world market and buy on one protected by tariffs and this cannot go on forever. The importing countries could pay in their own currencies or by barter. If farmers could get rid of their grain they would spend more on their homes and farms.

S. W. Stasel, of Huxley, Alta., is unalterably opposed to any restrictions on wheat production and considers the recommendations towards that end made by the Gordon commission to be "evil and vicious". His idea is to arrange for a deduction of a few cents a bushel on all wheat delivered, the money obtained thereby to be used for scientific research for uses for wheat other than human consumption. He points out that every large industry follows such a policy.

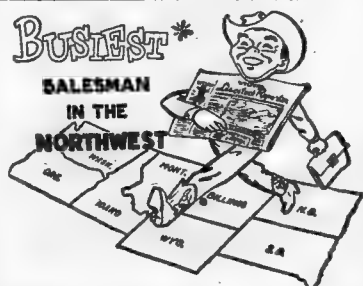
### Frontier Days in Leduc

THE Leduc district is famed throughout the continent (and probably the world) as the locality which originated the latest and largest oil boom in Western Canada. From the discovery well drilled by the Imperial Oil Co. there ten years ago has developed a widespread drilling campaign which has brought in 18,000 oil wells in the west.

But Leduc and district came into being through agricultural development. The first settlers arrived about 65 years ago and in the late 1890's the homestead era reached a peak. Over the years a productive and efficient farming economy resulted.

"Frontier Days in Leduc and District" is the title of a book which relates the saga of the region over those 65 years. The author is that well-known veteran newspaperman C. H. (John) Stout. He covered the assignment in fine style.

Copies of this interesting book are obtainable from W. A. Bell, town clerk, Leduc, Alberta. Price \$2.50, plus 15c postage.



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**THAT LOAD OF WOOD**

The Editor:

Have been away or would have written sooner to your correspondent, A. D. Driedger, of Camrose, Alta., who wrote regarding my splurge in a recent issue.

I am sorry if I gave him the impression that I was in the habit of selling a load of wood of the size depicted for seventy-five cents. I sold dry wood, but the load shown is of logs. I think I said that one of the men I sold wood to went to work in the lumber mill and kept up his reputation for hauling record loads. Let me assure him that this picture that was taken here was not unusual, and that the two horses shown will take it. The sleighs are 16 feet wide and the load about as high. Will make about 25,000 feet of lumber, and the chains alone weigh 3,000 lbs. Once started, it will travel along a deep-rutted, iced road, and is a

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matter of control. The driver has sand for this purpose. To unload, the wrapping chains will be struck in certain places and the logs will roll off. — F. A. Twilley, Swan River, Manitoba.

The Editor:

It seems obvious that Mr. Twilley must have had his tongue in his cheek when he sent in that picture of the load of logs and I hope Mr. Driedger did the same when criticising him.

For Mr. Driedger's information, the picture is one taken for the Red Deer Lumber at Hudson's Bay Junction, Sask., around 1904. While this load was exaggerated, the usual loads were about two-thirds that size and were handled by two horses with an extra team to help start them, not 16 to 24 horses. The roads were iced and the team's biggest job was to guide the load and do their best to brake it on the downhill runs.

My father worked for the Red Deer at that time, and we have two postcards showing what they called "The Big Load." My uncle also worked in that district a few years later, and we have two photos of actual loading operations proving the size of loads hauled in those days.—John H. Green, Ridgedale, Sask.

## STRANGE BEDFELLOWS

The Editor:

While the campaign being carried on in Calgary to provide winter employment is a splendid one, it has been spoiled by the introduction of labor leader speakers. These men who, such a short time ago, were supporting the railway firemen's strike, which cost the country millions of dollars, and kept the farmers from realizing on last year's grain by holding up the movement of grain from the west, are now trying to get back into the good graces of public opinion. But the damage has been done and the bad taste is still left. Farmers of today are not so gullible as to swallow such tongue-in-cheek outbursts. Farmers and trade unions would make strange bedfellows. The west coast shipping strike still rankles.—F. Pearce, Wimborne, Alta.

## SNAKES SWALLOW THEIR YOUNG

The Editor:

In the January issue of The Farm and Ranch Review the first lines in the nature article are: "Can snakes swallow their young in times of danger?" Then the writer goes on to say, that experts maintain such is impossible to happen.

One time I actually saw such happen. It was in the woods many years ago, and I can take an affidavit that such did happen. A garter snake made a warning signal, opened her mouth wide and the little 2½-inch baby snakes crowded in. Off she went with her mouth still wide open. I killed the snake, opened it, and did away with the 1 little ones inside.

There are things which happen in the wildernesses which people at desks never see and won't believe. — W. G. McCarger, Ste. 7, 6344 East Blvd., Vancouver 13, B.C.

## DANGER OF INFLATION

The Editor:

All the while the Federal Government has been attempting to halt in-

flation of credit and prices they have been inflating the currency!

Since the Hon. Walter Harris became Minister of Finance the currency has been inflated by about \$400 million and this inflationary pressure of the worst kind has been overlooked by the press and the Opposition.

At the end of 1920 in Germany 5 pf. bought a postage stamp. Before the end of 1923 it took 10 billion marks to buy the same stamp and the German authorities knew as much about controlling internal inflationary forces as the Ottawa experts.

It was the external pressures that wrecked the mark and the great threat to the Canadian dollar is the preposterous position the late MacKenzie King and the Rt. Hon. C. D. Howe have gotten us into in relation to the United States.

A panic selling of Canadian marketable securities by U.S. nationals plus a flight from the Canadian dollar are beyond the control of Ottawa but the growing chronic drain of about \$500 million adverse balance of payments (\$1 billion in the year just past) is not beyond their control.

This condition is almost entirely due to GATT and Mr. Howe stated in the House he would do nothing about it.

If we had sufficient gold production we could meet this drain but Ottawa backs the U.S. against the Commonwealth at every meeting of the IMF against a rise in the price of gold and Mr. Harris reduced cost aid to gold mines to further curtail gold production in Canada.

In addition he reduced the gold reserves consistently for 6 months after a constant 8-year, month-by-month accumulation.

The total reserves are also down from 1954 when foreign ownership of our assets was about \$2 billion less than it is now.

When every move weakens our position there is obviously something more sinister than natural inflationary tendencies of a fundamentally inflationist political party in power.

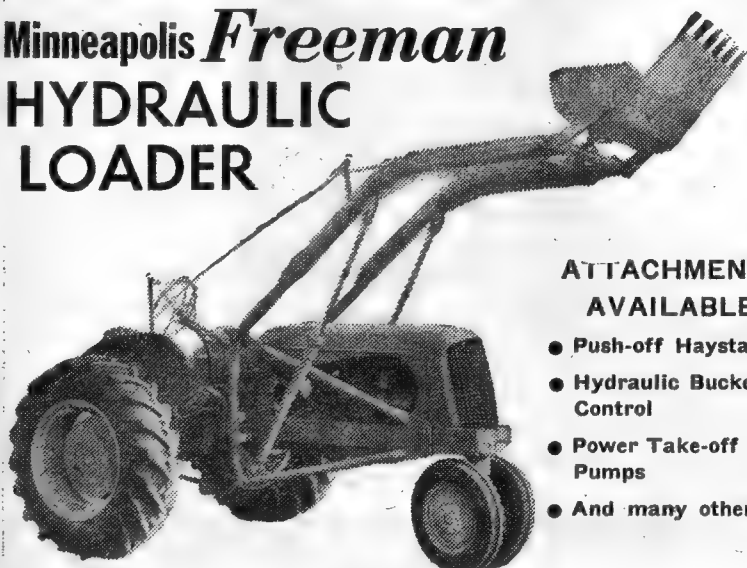
Our reserves of about \$1,900,000,000 are not sufficient safeguard against the \$5 billion of Canadian marketable securities held by U.S. nationals, the cash balances of American owned companies in Canada and the constant growing annual drain of about \$500 million on current account.

That is an urgent matter for the attention of the press and the Opposition, and a strict curb on this unnecessary currency inflation should be demanded. — R. P. Roberts, 601 Bute St., Vancouver, B.C.

## CLASSIC IN CAUSTIC COPY

Some time back a well-known farm journal, The Farmer-Stockman, ran as an editorial feature, two pictures: One showed a dilapidated, deserted house, the other a washed-out field. The publication offered prizes for the best essay suggested by the pictures. Who won the first prize? A Cherokee Indian. This is what he wrote — a classic in caustic copy: "Both pictures show white man crazy. Make big teepee. Plow hill. Water wash; wind blow soil. Grass gone, land gone, door gone, window gone; whole place gone to hell. Buck gone. Squaw and papoose gone. No chuckway, no pig, no corn, no cow, no hay, no pony. Indian no plow land. Keep grass. Buffalo eat. Indian eat buffalo. Hide make teepee, make moccasin. Indian no make terrace, no build dam; no give damn. All time eat. No hunt job, no hitch ride, no ask relief. No shoot pig. Great Spirit make grass. Indian no waste anything. Indian no work. White man heap loco."

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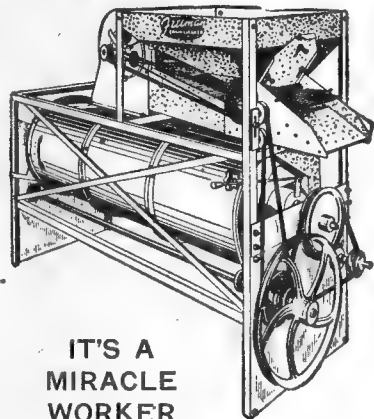
## Sneaky Wife

And an old Quaker not too careful of the teachings of his faith was discovered kissing the cook in the kitchen. The wife was a bit upset, but the old Quaker was not disturbed. "Wife," he said gently, "if thee doesn't quit thy sneaking and spying thee will make trouble in the family."

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## Turkey Hen Battles Gander

By ELIZABETH McCAIG

MAJOR, a kingly-gray gander, was absolute ruler of the barnyard. He bossed everything in it, including the horses and cows. He could bite so viciously, with a powerful twist, and could flay so fiercely with those hard, strong wings, that nothing in the yard would face up to, or defy him. He was most determined and domineering at feed time, when dry, whole grain was strewn on the ground in the yard for the fowl. He exerted every ounce of his strength and cunning to keep all else but the fowl away from that grain. Respect for his abilities extended even to the horses and cows.

One bright June day, all was serene in the yard. Grain had been put out, the fowl were feeding contentedly. Major was on guard, at attention, with head held high, when, quietly and confidently, a little, bronze turkey hen stepped out of the grass and weeds which surrounded the yard, followed by a brood of month-old poults. Without a sideways glance she sedately made her way straight in the direction of that scattered grain.

With neck outstretched, Major raced forward, prepared to do battle in true goose fashion. That little turkey hen was small and light, but in a split second she was a mass of bouncing, slapping, clawing, pecking feathers, aimed in the direction of Major's head. He lunged, he snapped, he struck with those terrible wings, but always she was just beyond reach.

With bewildering speed and agility she kept in perpetual motion, continually in the same direction, so that Major, in his attempts to reach her, was going round in a very small circle, and was not disturbing the feeding fowl.

All the while the poults were feeding greedily. So, with an eye on them, deftly and without let up, the turkey hen kept Major's attention completely occupied till the poults ate their fill, and swiftly and silently, in a

compact little flock, faded away into the safety of the weeds from which they had emerged. Then, quick as a flash, she whirled, and, half running, half flying sped away to join her family, leaving Major too dizzy and too confused to pursue.

Each day for several days that turkey hen brought her brood for a feed of grain, and each time Major was there to defend and protect his own. Always the turkey won out. Major's owner had been watching with amusement these bouts between gander and turkey, but on the fourth day, when Major collapsed after the bout, and didn't regain his usual confidence and assurance for some hours, this amusement turned to amazement and concern, so the turkey and her brood were herded to her own home and penned up.

Feather picking and cannibalism are common vices in laying flocks. Overcrowding encourages the habit of feather picking. Light breeds should be provided with 3 square feet and heavy breeds with 3½. High energy feed such as wheat is often a cause. Partial replacement with coarse ground oats may solve the problem. When birds appear nervous they should be fed a leafy green feed. A tablespoon of salt added to each gallon of water, given on two or three afternoons, three days apart, is effective at times.

The Saskatchewan Department of Agriculture has offered some good tips for the beginner in the turkey business. They suggest that 200 - 250 poults make a good economic unit, and point out that the production of a single turkey for market works out to about \$3.80, without making any charge for necessary buildings, other equipment and labor.

This cost is made up of 80 cents for the poult itself, 20 cents for brooding, \$1.40 for commercial feed required, and the same amount for home-grown grain used. The grain for these calculations was valued at 2 cents per pound.



Wins Top Cooking Prize

Mrs. John Bushko, of Vegreville, Alberta, was judged Canada's best cook of 1956 in a Canada Packers Ltd. contest which drew 100,000 entries across the nation.

Mrs. Bushko is here shown receiving the winner's prize, a cheque for \$2,500 for her recipe for prize velvet cake.

In second place was Mrs. Edgar W. Baycroft, of Laford, Sask., whose lemon pie recipe won \$1,500 for her.

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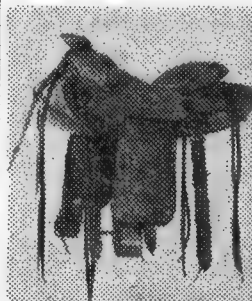
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## Canada's Largest Dairy Herd

By P. W. LUCE

TWO of the large dairy herds in British Columbia have been merged into one by the purchase of all the Grauer cattle by Geert H. Keur, of Lulu Island. The price, not officially announced, is known to be slightly over \$100,000.

The Grauer herd was made up of 290 Holsteins and 130 Jerseys, all high quality stock.

The Keur herd consisted of 250 Jerseys and 175 Holsteins, all first-class stock.

The present herd, 845 head, is the largest dairy group in Canada.

For some time to come, the Grauer herd will remain on the present farm, and will be operated by "Sunset Farms". The cows and their calves will continue to carry the prefix "Frasea", a name which has been made famous up and down the Pacific Coast.

Grauer Holsteins have always been

more numerous than Grauer Jerseys, but this has not been because of any special preference of the owners. The demand has been greater for the Holsteins, and so the Grauers catered to the market.

Foundation stock for both breeds have been sold to dairymen in Mexico, South America, Australia, the Orient, Eastern Canada, and, in large numbers, to the United States.

The Grauer farm was operated as a family corporation by J. Grauer & Sons, Limited, and had its own 50-wagon milk route in Vancouver and district. Dal Grauer served as president, but took no active part in the operation of the farm. Long ago he decided he was not meant to be a farmer, so he went in for business. He has done well. For some years he has been president of the British Columbia Electric Company, one of the most important and most highly-paid jobs in Canada.

The Grauer farm was established in the late nineties by the late Joseph Grauer, at a time when it was still possible to buy land cheaply on Lulu Island.

Geert Keur, the buyer, came as an immigrant from Holland in 1926. For six years he worked as a farm hand at the Dominion Colony farm, where he learned practically all he knows about dairying. He started in the business on a large scale, buying 120 head of pure-bred Jerseys in 1941 from the late Roy Brown, who had been in the newspaper business all his life and who ran his farm more as a hobby than anything else, but who made good money out of his 500-acre place.

In 1942, Mr. Keur bought a small but select herd from H. E. Burbidge of Royal Oak, Vancouver Island, and in 1951 he bought from Fairmeade Farms 22 head of prize stock recently imported from Jersey.

Mr. Keur has been a consistent winning showman at the Canadian Pacific Exhibition and at various shows and exhibitions in Washington and California. He is the owner of Quilchena Golden Queen, which has established the new record of 920 pounds of butterfat for one year for Jerseys.

Mr. Keur has two young daughters, but their interests are not in cows. They are the owners and proud showers of Arabian horses.

### FARM NOTES

World rice acreage this crop year is placed at 269,000,000 acres, an all-time record figure.

Ocean freight is about double what it was a year ago, due to the Panama canal blockade.

The Saskatchewan department of agriculture is operating a joint federal-provincial program for the record of performance of beef cattle. The idea is to build up herds of sires and dams which will produce profitable calves.

A Canadian Holstein cow, Nontvic Colleen Abbekerk, has established a new championship record for lifetime production of butterfat. In ten lactations she has produced 226,753 lbs. of milk (90,701 quarts) containing 9,861 lbs. of butterfat. The new champion is owned by J. J. E. McCague, of Allison, Ontario.

The population of the United States reached 168,091,000 in 1956. In 1946 it was 141,389,000, so the gain in ten years was 26,702,000, or 2,670,200 a year. The figure will pass 170,000,000 early this year.

## Health and Happiness

Coughing or sneezing a certain way of spreading cold germs, can be less dangerous if nose and mouth are covered with a disposable tissue.

If you are under severe stress, excitement or anger, don't drive your car. Such tension may impair your driving and cause an accident to yourself or others on the highway.

Milk is an important food for everyone, from infancy to old age. Elderly people should take at least one-half pint daily. If not liked as a drink, it can be taken in soups, desserts or in hot cocoa.

Children should have good relations with other youngsters in the same age bracket. By learning team play and to get along with others, they will have a happier childhood and grow up with a greater sense of security among other people.

When a child has symptoms of a strep throat it is wise to have medical attention. Rheumatic fever often follows throat infection and this may affect the nervous system and body joints, and may permanently damage the heart.

No matter how cold the weather, the doors of the garage should never be closed when the car engine is running. Carbon monoxide fumes are odorless, colorless and tasteless, and may permeate the garage and car, killing the driver.

A room which is not properly ventilated becomes filled with stale air. Dust, smoke and airborne viruses may be inhaled into the lungs of the occupants, and the dry air is irritating to the respiratory tract. A window open as little as an inch or so will keep air circulating and supply humidity.

### CATTLE GRUB INSECTICIDES

An insecticide known as ET-57 has been developed in the United States for killing cattle grubs. It is administered through the mouth and tests made by the U.S. department of agriculture proved it would kill the grubs before they break through the hide.

It has not yet been demonstrated, however, that this insecticide is the final answer, as great care must be taken in administering it and further experiments must be made to ascertain the reaction on the animal and the meat produced therefrom.

R. H. Painter, of the Livestock Insect Laboratory, Lethbridge, spoke on the subject to the Western Stock Growers' convention. He expressed the hope that eventually a safe and effective insecticide for killing cattle grubs before they emerge will be developed.

Research work in the use of this chemical in livestock insect control is being carried on at the Livestock Insect Section. There will be no distribution of any chemical until its safe use has been definitely established. Other insecticides, apart from ET-57, are being experimented with, one being Bayer 21-199.

The cattle grub is one of the country's costliest and most troublesome livestock pests.

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PROVINCE

## Follow The Beaver

By GORDON McLAREN

THE beavers teach us a lesson in flood control, and water conservation. They do not try to dam the main streams, and build huge reservoirs. They do their work with dams, on the small creeks, and streams, the tributaries of the big rivers.

Stony creek runs across our home farm. Some time in the past the beavers dammed the creek and created a lagoon half a mile long. In time the beaver dam was covered with silt. In 1904 the flood waters cut out the dam. In 1939 we built an earth dam, without any spillway. In 1940 we were nearly flooded out by the water held back by our dam. It was too high. Then in 1941 the dam cut out.

A few years ago the beavers came and built a small dam lower down the creek. At its flood crest the waters go over the dam. In the summer the water is held back.

What was done by the beavers on our farm could be done by man, all over the upper basins of the Assiniboine and Souris Rivers.

The tributary streams have swift currents and moderately high banks. Small dams could be easily built every few miles along these streams, that would create small reservoirs to hold back the unwanted waters that now flood the lower Assiniboine Valley. This water could well be used for small irrigation projects of ten to forty acres. Much of the water now running unused to the sea, could be stored up for drought years which surely will come again. This is a policy that can be carried out through the co-operation of the farmers, the municipal, provincial and federal governments.

Another point we must conserve the beavers, it is a matter of history, that in the early years of the nineteenth century, the demand for beaver skins was so great, that the beavers were hunted nearly to extinction. The Hudson Bay Company saw the harmful effects of this destruction on the flow of the rivers in their vast territory, and took steps to stop the reckless slaughter of the beavers. But fortunately a change in fashion, men's hats were made of silk, stopped the demand, and saved the beavers.

## The History OF Sugar

By M. B. EVANS

WE consume too much of it. That's what our dentists and dieticians tell us. We missed it terribly when it was rationed and now, when we are able to buy as much as we like of it, we pay just about the same price for it, per pound, as did the Lady Grisell Baillie, in Britain, during the years 1707-1717, according to her household account books.

White sugar is one of the most popular of the household staples. But the pure white granules and cubes with which we are familiar are a long way from the product that was first brought into England in the reign of Henry III, 1216-1272. The fortunate few who were able to buy it then paid about \$15 a lb. for what was called "Blanchpowder". Actually the blanchpowder was a real tattle-tale gray in appearance and very coarse in texture. This was because the first sugar arrived in London in large, flat blocks, or cakes. Chunks were broken off the blocks and they, in their turn, were pounded or crushed by mortar and pestle into the coarse "blanchpowder".

Over the years the sugar became whiter in color and finer in texture. But the pure white crystals as we know them today are not much more than a century old. It is recorded as

late as 1856 that the "sugar-bakers" still "improved" the appearance of their product with white lead! But whatever they did to it or however it looked sugar was popular. In 1694 when the population was about eight million people the country imported about sixteen million pounds of the sweet stuff. The price of it had come down for the Lady Grisell Baillie, buying four kinds of sugar, paid from 1s. 1½d. a lb. for the best, 8d. a lb. for coarse. Then, as now, sugar was a welcome gift. Six-pound loaves, called "sugar-royal" having been trebly refined, brought in the "sugar-box" and "sugar-tongs". The cone-shaped loaves had pieces broken off and these lumps, kept in the sugar-bowl, were lifted out with the aid of the sugar-tongs, which made their appearance in the English tea-set about 1708. The sugar-tong business boomed as can be seen by the collection of them that is displayed in the Victoria and Albert Museum. The late Queen Mary gave the Museum a beautiful pair, the work of a London silversmith. Nowadays we use spoons, tongs and dispensers. Whichever it is, there's no doubt about it — we do like our sugar!

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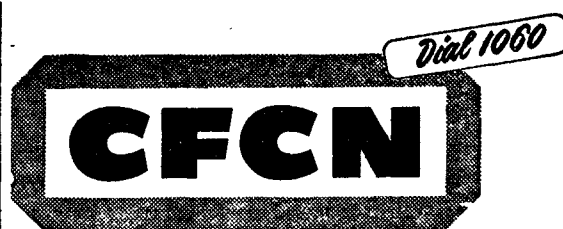
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## The Story of Oil

By the Editor.

**HENRY KELSEY**, an employee of the Hudson Bay Co., was the first white man to travel across the prairies of Western Canada. He made the journey from York factory on the Bay in 1690, travelling eastward as far as LePas in Manitoba. Then followed the eras of the fur traders, the ranchers and finally the settlers. It was in 1883 that the Canadian Pacific Railway crossed the prairies.

But the geological history of the prairies of the west goes back to an almost incalculable length of time. Utilizing uranium as a "time clock" scientists calculate the age of the region at two billion three hundred million years. Of that vast stretch of time one billion eight hundred million years belong to the pre-Cambrian, or lifeless, era. It is within the past 500,000,000 years that, through eroded river banks and valleys and through cores brought up by oil-well drills, fossils have been found which measure the time when life first made its appearance here.

### How Oil Was Formed

Compared with the tiny span of man's life on earth half a billion years seems infinity. Within that stretch of time the prairie regions experienced periods of polar climate and centuries of tropical heat. Fifteen times great seas swept over the region and then flora and fauna flourished. Included in the latter were monstrous dinosaurs, some species being over 100 feet in length. As the climate changed, through inroads of polar ice during the "ice ages", the vegetation and creatures perished. Subsequent periods of warm climate and further inflowing of seas, in which great rivers deposited sediment, covered the organic matter and bacterial action, pressure and heat changed it into oil and gas, which was squeezed by tremendous pressure into porous rocks (usually sandstone and limestone) which, when capped by impervious rocks, provide the great oil and gas deposits now being sought out by oil drillers today.

In that fashion the oil-containing sedimentary basin of Western Canada was created. It spreads over southwestern Manitoba, two-thirds of Saskatchewan and almost all of Alberta, and has been tentatively estimated as covering over 700,000 square miles. Up to the present over 6,000 exploratory wells have been drilled and 3,000,000,000 barrels of oil discovered.

The oil and gas must be capped by impervious rock formations in order that recovery by drilling can be made. The Athabasca tar sands provide an example of oil deposits which were not capped and had drifted upward to the surface of the earth. The problem there is to extract the oil from the sands with which it is intermingled.

### Where Oil Is Found

The first field of importance to be discovered was Turner Valley in 1914, in which gas and oil was located in an anticlinal fault trap. Fields along the foothills of the Rocky Mountains, such as Pincher Creek, Jumping Pound and Sundre are similar. But

discoveries elsewhere were of little importance until an Imperial Oil crew spun a drill into a coral reef at Leduc in 1947. That started the search for oil in earnest. Other coral reef fields at Redwater, Golden Spike, Wizard Lake and Bonnie Glen were brought into production. Stratigraphic traps at Loarcam, Viking and Joffre proved up oil fields and a wedge of sandstone buried deep in the earth between shales was where the oil was located. Pembina, one of the largest oil fields in North America, produces from the cardium sands, and provides one-quarter of Canada's total oil production.

The oil fields around Fort St. John, B.C., are producing from structural traps of the antilinal type. In western Saskatchewan such pools as Brock, Buffalo Coulee, Centaur, Coleville, Fosterton and Smiley are stratigraphic and anticlinal types; also Midale and Steelman. The Alida-Nottingham pools are unconformities.

### The World Situation

The world demand for oil is probably around 15,200,000 barrels a day and is on a steady increase. The Canadian demand is around 150,000 barrels a day, and it, too, is increasing rapidly. Western Canada alone will soon be using 150,000 barrels a day.

The United States produces about 48% of the total world production and consumes about 55%.

World known reserves of oil total around 155 billion barrels. Of that total 20% is in the United States, 7% in Soviet Russia, 7.5% in the Caribbean area, 1.6% in Canada and around 60% in the Near East. Europe's industrial existence depends on Near East oil, hence the dread of Egyptian control, under Nasser, of the Near East oil resources.

There are 18 municipal seed cleaning plants in Alberta which can handle up to a total of 35,000 bushels daily.

In the campaign to keep Alberta free of rats 28,000 of those animals were killed last year. Of the 2,773 farms inspected on the eastern border of the province only 89 showed rat evidence.

The Supreme Court of Canada handed down an opinion declaring the Ontario system of farm marketing boards is legal. It was held that charges to farmers to foot the cost of marketing services are legal provincial charges. Provincial marketing boards can control marketing under present Ontario legislation.

World peace begins with the state-destroying wish for universal reconciliation and it ends with nobody moving a finger as long as misfortune touches his neighbor. — Spengler.

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You can demonstrate these wonderful wares with your own sets, obtainable less your commission, on the usual easy terms. Many of our representatives are earning \$50 to \$100 a week in their spare time.

Hurry your application to John Wither- spoon, Western Canada Supervisor, 2605 10th St. W., Calgary, Alberta.

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**GETTING MARRIED?** Special Guide for brides-to-be, for the perfect wedding, completely illustrated with photographs, diagrams, charts, 25c postage paid. Home Hygiene Co., Box 403, Station A, Toronto, Ont.

**ADULTS ONLY!** Books, jokes, tricks, party supplies. Send for free catalogue to Novelty Fun Centre, 230-N Parliament St., Toronto

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**WANTED — 450 BUSHELS OF LEADER SEED OATS.** J. J. Anderson, Markerville, Alberta.

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**STAMMERING CORRECTED:** Helpful booklet gives full information. Free copy. Write: Wm. Dennison, 553-R Sherbourne St., Toronto.

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**CIGARETTES,** Cuban, Egyptian, etc., \$6.00 assorted cartons. Germain Bourassa, St-Bernabe North, Que.

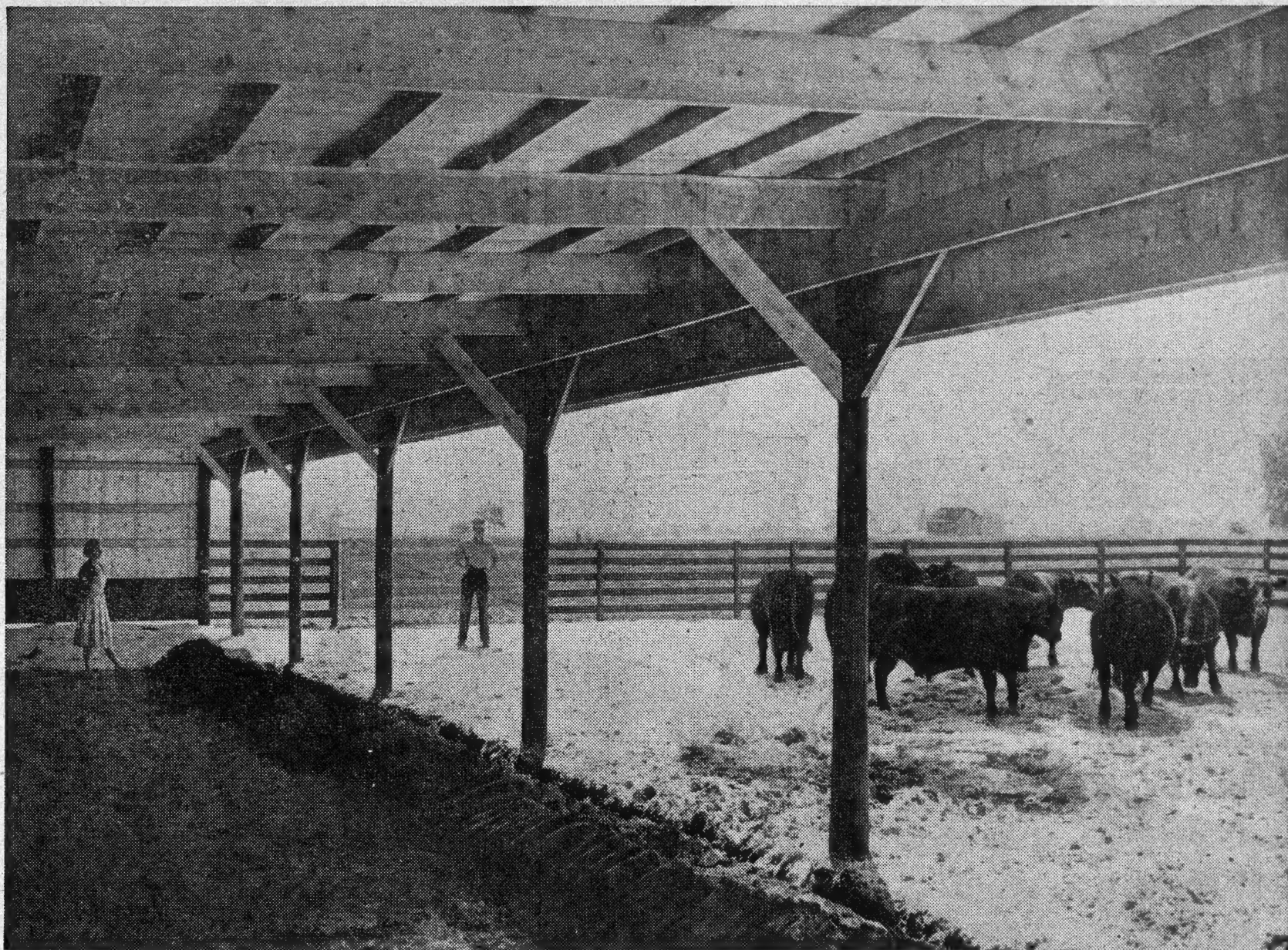
## Solution to Crossword Puzzle

POT	PIPES	LAPSE	LEASES
ODE	ARIEL	ORIEL	IMPORTS
LEERS	PLANK	NADIR	TRIAL
ORNATE	STEIN	SEDAN	TERA
SMELL	SA	AP	REEM
AM	PKIES	RAVEL	SOPOR
ROC	STAIN	MERIT	BARRED
MOOD	ESTER	SO	RA
ORLOP	TECHE	NEEDS	LATEN
REINED	SEINE	HADES	BETA
CARAT	SNUBS	SLEEPS	SIP
FA	REVERSER	ENORMOUS	AS
EGG	SINAI	EATEN	STINT
RARE	SOTTO	STAAB	STARTS
AVAST	RIANT	ORBIT	ERASE
LENTIL	OT	AT	SLEEP
DETER	ENNUI	ERRED	PEA
BC	RAPID	OGRES	SPARE
EOS	NE	UM	OK
AMOR	RELIT	STALE	SITRAH
DELOS	SYNOD	STIRS	NEIRA
STATION	EPONA	NIECE	SAT
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**WHY FEED LICE!** — Dealers Wanted. **CATTLE OILER \$37.50** 5-Gal. Over-post Tank Kit, automatically soaks oiler, \$21 extra. Winter use, \$16 gal. Lice, Warble Killer. Summer, \$11 gal. Fly killer. Mix each with 20-40 p.p.s. fuel oil. **FARMER SPECIAL.** \$40 orders and up prepaid. Pamphlet, Stockmen's Supplies. **DANDS, Swift Current, Sask.**

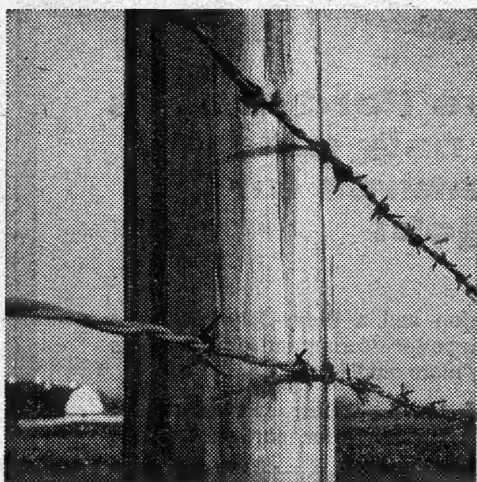






*Everything goes up fast except the cost . . . when you build on*

## PENTA-TREATED POLES



LONG LASTING FENCES can be erected with clean, easy-to-handle penta pressure-treated posts. Return coupon below for complete details.

Barns, cattle shelters, machine sheds and many other structures go up more quickly and easily when they are built on penta-treated poles. With poles serving as foundation, studding and roof support, all in one, you save substantially on lumber. In addition, with much less sawing, fitting and nailing to do, you save on labour. That's why sturdy, permanent buildings, can be erected on penta-treated poles *with savings up to 50% of conventional construction costs.*

Clean treatment with Dow Pentachlorophenol\* keeps rot out, keeps poles sound and serviceable years longer. Penta-treated poles are attractive and easier to handle because they have no sticky, irritating rub-off.

Ask your local supplier to show you cost-cutting plans for pole buildings, or mail the coupon below to DOW CHEMICAL OF CANADA, LIMITED, Lancaster Building, Calgary, Alberta.

\*In accordance with A. W. P. A. specifications.

MAIL THIS COUPON TODAY!

**DOW CHEMICAL OF CANADA, LIMITED,**  
Lancaster Building, Calgary, Alberta.

Please send me, without cost or obligation:

- ☐ Information on low-cost pole buildings.
- ☐ Booklet, "PENTA Pressure-treated Farm Posts."
- ☐ Name of dealer where I can buy PENTA pressure-treated posts and PENTA-treated poles.

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# Look!

NEW

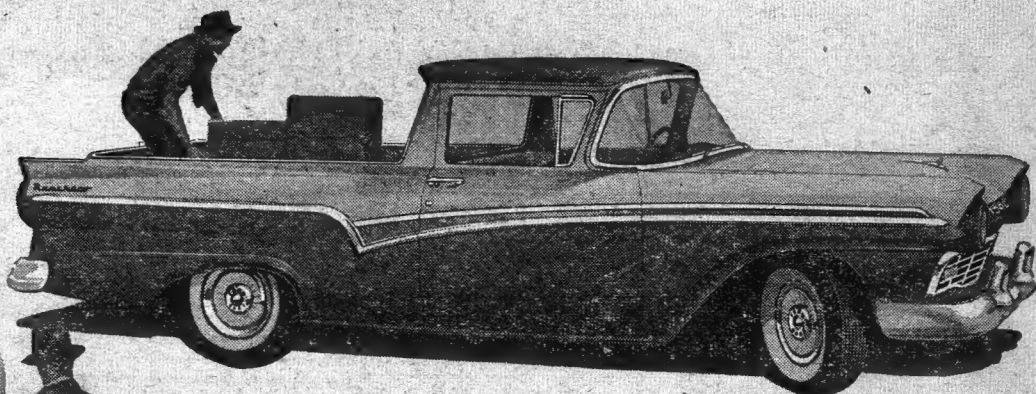
# FORD TRUCKS for '57

CANADA'S MOST MODERN

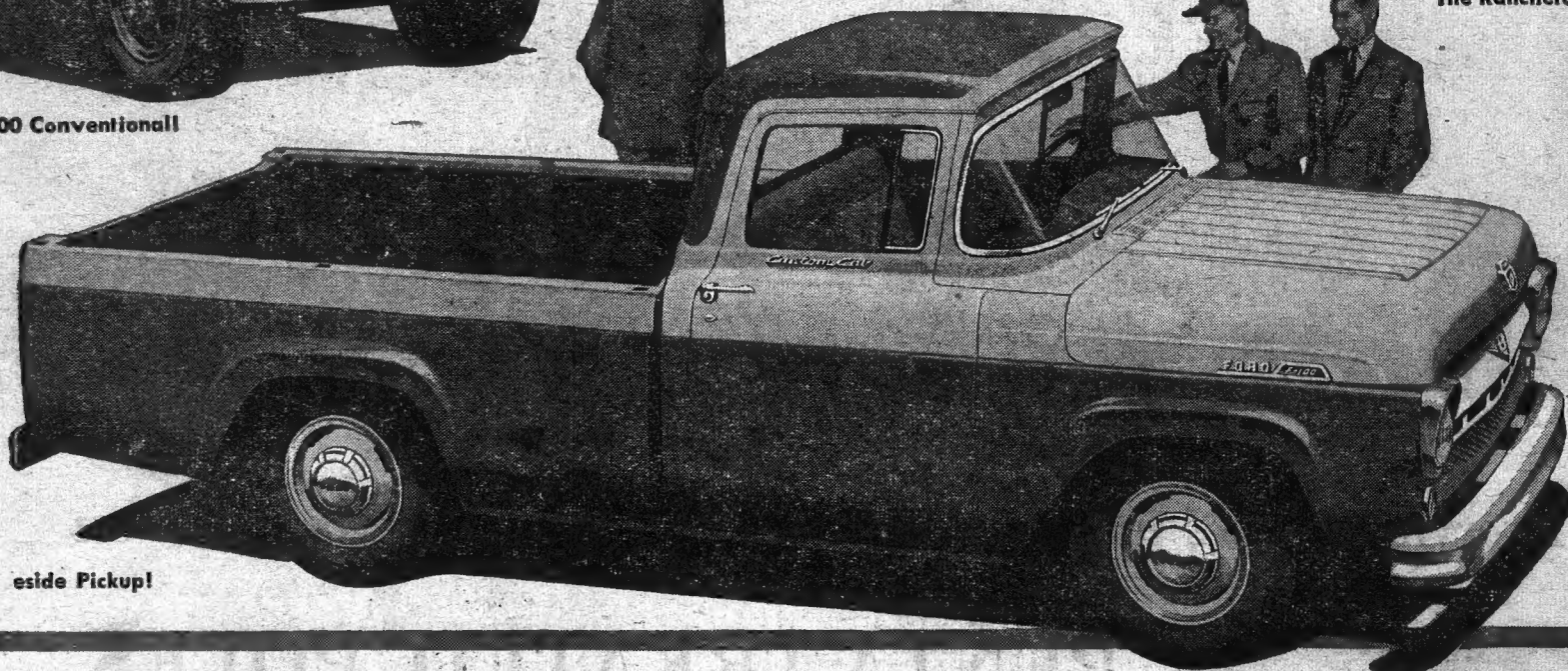
## V-8 and SIX!



F-600 Conventional



The Ranchero!



Styleside Pickup!

# Look again!

See how many ways Ford Trucks are modern... with new models, new power, new features for every farm hauling job!

**NEW** More than 30 brand-new models, with G.V.W. ratings up to 45,000 lbs.; G.C.W. ratings up to 65,000 lbs.!

**NEW** Five half-ton pickups in the line... and only Ford has 'em!

**NEW** Sensational Styleside pickup bodies, standard at no extra cost—Canada's biggest, with 25% more loadspace!

**NEW** The fabulous Ranchero—more than a car—more than a truck—carries more than half a ton!

**NEW** Eight ultra-modern, super-efficient engines—V-8 and Six—every one of them offering the long wear and gas-saving economy of true short-stroke, high-torque power—all with the newest engineering advancements!

**NEW** Fordomatic Transmission and a heavy-duty automatic transmission, as well as power steering and other options now available on many more models!

**NEW** Structural rigidity and positive sealing, with all-welded construction, makes cabs stronger, safer, more comfortable!

**NEW** Hi-Dri ventilation keeps out water, brings in cleaner, fresher air!

**NEW** Hydraulic clutches work like hydraulic brakes, make shifting easier, reduce maintenance!

**NEW** "Natural position" suspended pedals eliminate toeboard holes, keep cabs weathertight!

For '57 and the years ahead **FORD TRUCKS COST LESS**

to own... to run... last longer too!

(Certain features illustrated or mentioned are "Standard" on some models, optional at extra cost on others.)

SEE YOUR FORD-MONARCH DEALER





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## in These New JOHN DEERE TRACTORS



Working with big-capacity payloads like this No. 650 Series Tool Carrier, the new John Deere 5-plow "720" Standard Diesel greatly increases your daily work output.

**NEW  
POWER**  
for Easier,  
Better Work

**GREATER  
ECONOMY**  
That Slashes  
Operating Costs

**NEW  
COMFORT**  
and Convenience  
Features

**TRADITIONAL  
John Deere  
Value!**

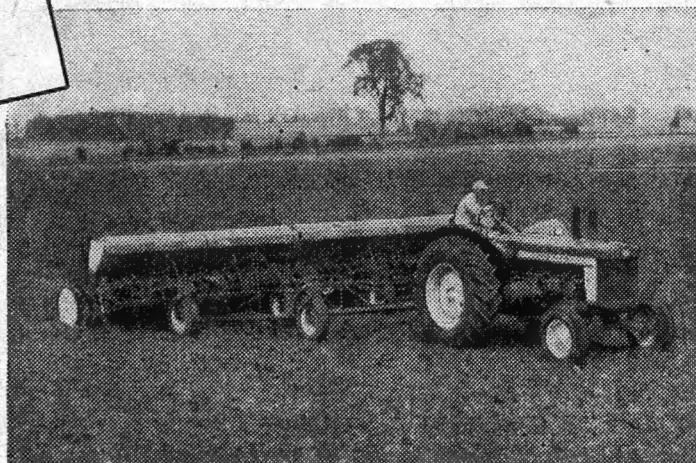
**T**HE NEW John Deere 4-plow "620" and 5-plow "720" Standard Tractors are out-performing the field when it comes to work capacity and operating economy. Designed especially for grain growers, both of these tractors offer every modern feature to make your work easier and more enjoyable than ever before. These features include new *Custom Powr-Trol* with up to three completely independent hydraulic circuits, new Universal 3-Point Hitch with exclusive Load-and-Depth Control, new Independent Power Take-Off, *Advanced Power Steering*, and new Float-Ride Seat. See your John Deere dealer soon and arrange to drive

a new "620" or "720" Standard Tractor.

### A Word About Fuel Economy

The new "620" Standard Tractor features the same engine which set a new drawbar fuel-economy record for gasoline tractors in official Nebraska Tests. The new "720" Diesel set a new all-time tractor fuel-economy record at Nebraska—the fourth John Deere Diesel to hold this record in unbroken succession since 1949. These impartial test results mean that more of your fuel dollars will be turned into profit dollars when you choose a new John Deere "620" or "720" Standard Tractor.

## The NEW 5-6 PLOW "820" DIESEL



The new John Deere "820" Diesel Tractor offers you 5-6 plow power, outstanding fuel economy, and every modern feature. It's the fuel-economy leader in its class, second only to the new "720" Diesel in official tests.



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Please send me information on the tractors checked below:  
☐ "620" Standard ☐ "720" Standard  
☐ "820" Diesel

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State \_\_\_\_\_